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22th-26th May 2024
Targu Mures, Romania

BOOK OF ABSTRACTS

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BASIC MEDICAL SCIENCES

GAMBLING ADDICTION AND THE PSYCHOSOCIAL IMPACT THEREOF ON YOUNG PEOPLE

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Background: Gambling addiction is increasingly becoming a public health issue. Numerous studies have concluded that this addiction leads to an alteration of neuronal connections between the amygdala and the prefrontal cortex, as well as a significant thinning of cortical thickness, especially in the right frontal regions of the brain, as evidenced by analyses conducted through magnetic resonance imaging. In parallel, the severity of the addiction is associated with the level of impairment of the precuneus. **Objective:** The objectives of the study include assessing the psychological and emotional impact of gambling addiction on young people, analyzing the social consequences of this addiction, evaluating the physical health impact of gambling on youth, with a focus on sleep, diet, and physical activity behaviors, and examining the influence of peer groups and social environments on the development and perpetuation of this addiction among young individuals. **Material and methods:** The psychological investigation method used in this stage is the online questionnaire. The sample included 340 individuals aged between 18 and 24 years old. The study was conducted over a period of 12 months, from June 2023 to May 2024 **Results :** The study reveals that 60% of the participants are male, while the remaining 40% are female. Out of all participants, 63.5% have had experiences with gambling at least once in their lives. Among them, 40% started gambling after the age of 18, and 23.5% started before this age. The most popular games were casino games, especially slot machines. The main motivation for participating in these games was curiosity and peer influence. A percentage of 2.32% play daily or almost daily, and 6.88% reported significant financial losses. Those who suffered losses of over 1000 lei had problems in interpersonal relationships and manifested tendencies of alcohol or tobacco abuse and more aggressive behavior. It is important to note that these percentages only include male members of the sample. 5.62% of male participants experienced psychological disorders, such as depression and anxiety, accompanied by physical conditions, such as headaches and insomnia. In contrast, females recorded more positive values, not experiencing psychological, physical, financial, or behavioral problems. **Conclusions:** According to the analysis, gambling can significantly impact the mental health of young individuals, especially males, manifesting in various forms, such as mental and physical health conditions, social and financial issues. These conditions can mutually amplify and coexist within the same individuals, emphasizing the complex nature of the challenges associated with gambling.

Keywords: Psychological impact, Gambling addiction, Young people

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HISTOPATHOLOGICAL ASPECTS OF PANCREATIC LESIONS: PRELIMINARY RESULTS

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Background: The pancreas undergoes several morphological and pathological changes with aging, such as pancreatic atrophy, fatty degeneration, fibrosis, inflammatory cell infiltration and exocrine pancreatic metaplasia. The rate of pancreas diseases is increasing over time and predicting the type of pancreatic lesions based on the histopathological aspects is still a diagnostic challenge. **Objective:** To present our data regarding the histological features of pancreatic lesions. **Material and methods:** We evaluated the clinicopathological parameters related on the pancreatic lesions, consecutive cases, diagnosed at the Department of Pathology of the Clinical Country Emergency Hospital of Targu-Mures, Romania, during 2017-2021. **Results :** Through the examined five years, there were 94 cases diagnosed as pancreatic lesions. The male:female ratio was of 1.35:1 (57.45% males and 42.55% females). We have identified 57 tumors (60.64%) and 37 (39.36%) non-tumor lesions. Of the 57 tumors, 53 have exocrine- and 4 showed endocrine- origins. The most widespread histological type among exocrine tumors was ductal adenocarcinoma (n=42), while the rest of them being represented by cystic mucinous- (n=5) or serous- neoplasms (n=3), adenosquamous carcinoma (n=1), anaplastic carcinoma (n=1) and acinar cell carcinoma (n=1). Based on age categories, most of the patients were diagnosed between 61-70 years-old (35.10%) and 71-90 years (21.26%). In younger patients, however, the number of cases was also high: 5.31% of patients were diagnosed between 31-40 years old, 20.21% between 41-50, and 18.08% between 51-60 years. The mean age of the patients was not significantly different between men and women (60.40 vs. 61.22 years; p=0.74). No significant statistical association was found between the distribution of tumor lesions through males and females (p=0.54). **Conclusions:**

Among the pancreatic lesions, neoplasia is predominant, with a peak incidence after the sixth decade, in both males and females.

Keywords: ductal adenocarcinoma, neuroendocrine tumors, pancreas

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CONNECTING THE DOTS: DIABETES AS A RISK FACTOR FOR SEVERE STRONGYLOIDIASIS

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Background: Severe strongyloidiasis caused by the parasite *Strongyloides stercoralis* can manifest in two distinct forms: *Strongyloides* hyperinfection syndrome (SHS) and disseminated strongyloidiasis. Both can be the result of multiple risk factors with immunosuppression as the underlying theme: usage of immunosuppressive treatments (drugs, irradiation), organ or bone marrow transplantation, coinfection with HTLV-1 or HIV, presence of IRIS, hematologic malignancies, hypogammaglobulinemia, malnutrition or alcoholism. While severe strongyloidiasis has been described in immunocompetent patients with diabetes mellitus, it is still unclear if diabetes can be considered a relevant risk factor for the infection. **Objective:** The aim of this comprehensive review is to assess whether diabetes alone can be regarded as a risk factor for the occurrence of severe strongyloidiasis. **Material and methods:** A search of the existing literature was conducted in three different databases (PubMed, Web of Science, Scopus) by using two separate search algorithms adapted for each one of them: (strongyloides OR strongyloidiasis) AND diabetes AND (hyperinfection OR disseminated strongyloidiasis); (strongyloides OR strongyloidiasis) AND immunocompetent. The searches were performed on the 27th of February 2024 and yielded a total number of 265 results. Case reports and case report series were selected to further apply the inclusion criteria: coexistence of diabetes mellitus and severe strongyloidiasis without any other risk factor associated with the latter being present. A total of 13 cases written in English were included in the final analysis. **Results :** From the total of 13 patients that met the inclusion criteria, 11 (84.62%) were male and 2 (15.38%) were female. The median age for these patients was 61 years (range 31-82 years). The cases mainly originated in Asia (n = 6, 46.15%) with only one case reported in Europe (n = 1, 7.69%) and one in Australia (n = 1, 7.69%). The rest (n = 5, 38.46%) had northern American origin. Most included cases described SHS (n = 9, 69.23%) and only 4 patients (30.77%) presented with eosinophilia. An increased mortality rate (n = 6, 46.15%) was observed, the cause being failure in diagnosing *S. stercoralis* infection, a delayed diagnosis, or major complications despite starting appropriate treatment. A total of 9 patients (69.23%) were treated with ivermectin, the first-line therapy for strongyloidiasis. **Conclusions:** Based on our findings, we cannot exclude diabetes as a risk factor in the occurrence of severe strongyloidiasis. However, due to limited data, future research is required to further reach a clearer conclusion.

Keywords: Strongyloides, diabetes, immunocompetent

MONOMERIC C-REACTIVE PROTEIN AND ANTI-MCRP ANTIBODIES: POTENTIAL BIOMARKERS OF DISEASE ACTIVITY IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Pentameric C-reactive protein (pCRP) is an acute phase protein synthesized by hepatocytes, primarily following expression of the proinflammatory cytokine Interleukin-6 (IL-6), during infection and inflammation. Chronic inflammatory states, such as autoimmune diseases, are characterized by augmented serum levels of pCRP, which is directly reflected in the magnitude of inflammation severity. An exception to this rule is represented by Systemic Lupus Erythematosus (SLE), in which pCRP levels oscillate broadly amongst SLE patients subsets, depending on quiescent or active disease phase and associated manifestations. Dissociation of pCRP to its monomeric subunits, mCRP, occurs upon contact with activated cells and tissues, and has been associated with exposure of new epitopes, neo-CRP. Interestingly, amidst the plethora of auto-antibodies present in SLE, anti-mCRP but not anti-pCRP antibodies have been described in individuals affected by this pathology, therefore, a possible relationship between mCRP, mCRP-antibodies levels, and disease activity is discussed here. **Objective:** The aim of this study was to assess the association between mCRP, anti-mCRP antibodies levels and

SLE activity status. **Material and methods:** A search of English literature has been performed on PubMed and Google Scholar. Inclusion criteria for the selected articles consisted of publication between the year 2004 and 2024, and presence of the keywords "monomeric C-reactive protein", "Systemic Lupus Erythematosus", anti-mCRP antibodies", "Autoimmune Diseases". **Results :** A study including 160 patients diagnosed with SLE showed that serum pCRP did not discriminate between active and quiescent disease, however the ratios of mCRP/pCRP reached statistical significance in paired samples, with lower values displayed in active disease as opposed to the dorment state. Furthermore, the mCRP/pCRP ratio was higher during remission. Serially collected sera of 10 patients involved in a prospective control program demonstrated anti-mCRP positivity for 60% of the SLE individuals at flare, whereas all the participants with active lupus nephritis had anti-mCRP positivity at flares. In addition, SLE disease activity index (SLEDAI) scores positively correlated with anti-mCRP levels. A recently conducted study aimed to investigate the prevalence of both pCRP and mCRP on extracellular vesicles (EVs), as the latter are implicated in SLE pathogenesis by exposing nuclear antigens on their external surface, therefore promoting autoantibodies generation. Plasma mCRP+ but not pCRP+ EVs were significantly increased in patients with active SLE state and in anti-mCRP positive participants. **Conclusions:** The interrelationship between pCRP and mCRP appears to discriminate SLE activity states. Anti-mCRP antibodies correlated with SLE disease activity, nevertheless, further research exploring their generation by mCRP opsonized EVs and effects are needed.

Keywords: Monomeric C-Reactive Protein, Lupus Erythematosus Systemicus, Anti-mCRP Antibodies, Autoimmune Diseases

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THE ROLE OF ARTIFICIAL INTELLIGENCE IN PREDICTING PROTEIN-PROTEIN INTERACTIONS FOR INVESTIGATING ARYLSULFATASE B IN THE DEVELOPMENT OF COLORECTAL CANCER

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Background: The investigation of protein-protein interactions is crucial for comprehending various biological mechanisms, cellular processes, and the pathogenesis of different diseases. While some studies have suggested a potential link between the arylsulfatase B (ARSB) protein and malignant colorectal tumours, the molecular mechanisms behind this are still poorly understood. Recent technological advancements have made it possible to have several databases that store our current information on protein-protein interactions and based on this knowledge, with the use of artificial intelligence to predict new interactions. This has made in silico interaction studies significantly more accessible compared to experimental methods. **Objective:** Our research attempts to analyse the possible involvement of arylsulfatase B in the pathogenesis of colorectal cancer, while using various bioinformatics tools and databases to predict protein-protein interactions. **Material and methods:** For the analysis of arylsulfatase B interaction network the STRING online database was utilised with a confidence score of 0.400, as suggested by the database. Following this, the proteins from the most effective interaction pathway were selected and individually examined using two machine learning software. The PEPPI system predicted interactions based on the protein's amino acid sequence, while the HDOCK Server online tool utilised the protein's tertiary structure for this purpose. **Results :** Based on the results of STRING database, the GUSB and HSP90AB1 proteins are the most strongly associated with ARSB in the development of colorectal cancer, with an overall confidence score of 0.778 and 0.626 respectively. According to the PEPPI system, the HSP90AB1 protein is most likely to interact with the AKT1 (log(LR) = 1.787), TP53 (log(LR) = 0.965), and EGFR (log(LR) = 0.874) proteins. Furthermore, the HDOCK Server showed a high confidence score of interacting with HSP90AB1 for the RAF1 (0.9208), BRAF (0.9141), and EGFR (0.9020) proteins. **Conclusions:** The PEPPI system predicts the AKT1, while the HDOCK Server predicts the RAF1 protein to be the most likely interaction partner of HSP90AB1. It is noteworthy that both software found a significant interaction probability between the HSP90AB1 and EGFR protein. The difference in results can be attributed to the distinct prediction methods and the differences in information carried by the primary and tertiary structures input. These results demonstrate the wide availability and applicability of in silico prediction of protein-protein interactions. This method holds a significant place in future biomedical research, including the potential to better understand the role of arylsulfatase B in the development of colorectal cancer.

Keywords: arylsulfatase B, colorectal cancer, protein-protein interaction, artificial intelligence

ETHANOL POISONING - STILL A FREQUENT CAUSE OF DEATH

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Background: Alcohol intoxication refers to clinical pathology induced by recent alcohol ingestion, when alcohol and its metabolites accumulate in the bloodstream faster than it can be metabolized. The major adverse effects of alcohol that attract clinical attention are neurological, gastrointestinal and cardiovascular, which are directly related to blood-alcohol concentration (BAC), death occurring quickly in high concentration levels. **Objective:** This study aims to investigate the prevalence and particularities of alcohol poisoning in Mureș County over a two years period, following the dynamics and the lethal concentrations. **Material and methods:** 52 autopsy reports were included, with the cause of death being alcohol intoxication (ethanol, methanol and ethylene glycol), within the Institute of Forensic Medicine in Târgu Mureș. The dynamics were investigated based on various criteria such as the environmental criteria, blood-alcohol concentration (BAC), urine-alcohol concentration (UAC), the alcohol metabolic phase at the time of death, as well as the presence or absence of traumatic injuries and identification of other associated drugs. **Results :** Most deaths were caused by acute ethanol intoxication (31/52), followed by methanol intoxication (17/52), applied in both genders, predominating in males (41/52). Most cases came from rural areas (33/52) and the most common age being between 45-65 years (30/52). The predominant metabolic phase at the time of the necropsy was the elimination phase. Traumatic injuries found, were not related to thanatogenesis. **Conclusions:** Toxicological tests represent an essential element in all unnatural and sudden deaths, many times being the key in establishing the actual cause of death. In our practice, alcohol poisoning remains the most common type of lethal intoxication.

Keywords: Forensic medicine, Lethal alcohol intoxication, Alcohol concentrations

CO-LOCALIZATION OF TPPP/P25 PROTEIN AND A-SYNUCLEIN IN THE RETINA AND OPTIC NERVE

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Background: Tubulin polymerization promoting protein (TPPP/p25) is present in the retina, optic nerve and brain, in oligodendrocytes and in neural networks rich in dendrites and axons. TPPP/p25 protein localization was evident inside cellular bodies, nucleus and in the cytoplasm of cell extensions. α - Synuclein is expressed mainly in the dopaminergic neurons in the midbrain and in nerve cells of the central nervous system, at the level of presynaptic nerve endings. A study showed the absence of α-synuclein from the optic nerve under physiological conditions. But the same study found the presence of α-synuclein in the optic nerve in patients with synucleinopathies. α-Synuclein is endogenously present in all cell layers of the retina. **Objective:** This study aims to examine possible co-localization in the retina and optic nerve of this two proteins, based on images from previous studies. **Material and methods:** We analysed available published images of α - synuclein from scientiffic literature and unpublished - own images of TPPP/p25, in order to compare the localisation of this two proteins. The images were obtained using confocal microscopy and immunofluorescent labelling, or transmission electron microscopy (TEM) and immunogold labelling. **Results :** TPPP/p25 protein is localized in amacrine cells of the inner nuclear layer (INL) and in ganglion cells from the ganglion cell layer (GCL). Also, TPPP/p25 shows a characteristic 3 stratified display in the inner plexiform layer (IPL). This protein was also present in oligodendrocites of the optic nerve. α-synuclein showed immunofluorescent labelling in cells in the INL and GCL, close to the IPL, and cells of the optic nerve. **Conclusions:** Based on a rigorous evaluation of the retina and optic nerve on available confocal and TEM images, we can conclude with a high degree of confidence that the two proteins are co-localized in amacrine cells, ganglion cells and in the 3 layered stratification of the IPL. Co-localization of these proteins may form a hallmark protein cluster in synucleinopathies.

Keywords: TPPP/p25, α-synuclein, retina, optic nerve

THE ROLE OF RELIGIOUS BELIEF, SOCIAL SUPPORT AND THERAPIES IN ALLEVIATING THE POTENTIAL FEAR OF DEATH FROM CANCEROUS DISEASES

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Background: The fear of death (thanatophobia) is a fear of separation, existential anxiety, fear of non-existence and the unknown, of passing away. Most cancer patients experience this during their illness, for whom their relationships, their faith or even their doctor can be of support. As with all pathological processes, the fear of death can be periodic or chronic, with both milder and stronger fear. **Objective:** My research aims to investigate the factors influencing the fear of death, the role of religiousness, human relationships as well as therapies in alleviating this fear. **Material and methods:** Online data collection using a self-completion questionnaire package that included the following items: demographic data, MOS SSS-H questionnaire (a measure of social support), and Lester's attitudes towards death scale. **Results :** In the present cross-sectional study, 96 people participated, of which data from 81 people can be interpreted. The sample processed was 90% female and 10% male. The average age of patients was 53 years old. Most patients were diagnosed with some type of malignancy. 87% of those surveyed had experienced fear of death during their illness. The patients were classified into three groups according to their faith (religiousness): 57% religious, 22% non-believers and 21% neutral. 26 persons had participated in personal/group psychotherapy and less than half of the remaining patients (24/55) show interest in therapies. For religious subjects: AVG: Lester=3.62 (T: 3.30; NT=3.84) and MOS SSS-H=80.21 (T:79.78; NT:80.5). Whereas non-religious subjects: AVG: Lester=2.93 (T: 2.08; NT=3.18) and MOS SSS-H=75.05 (T:72.25; NT: 75.87). For those with neutral beliefs: AVG: Lester=4.09 (T:3.11; NT=4.30), and MOS SSS-H=74.76 (T:70.33; NT:75.71). Taking into consideration all three groups, we find that participation in therapy is associated with a lower means of Lester and MOS SSS-H. The internal reliability of both questionnaires was good (Cronbach Alpha values Lester= 0.815, MOS SSS-H=0.966). (Notation: T=participated in therapy, NT=did not participate in therapy) **Conclusions:** In summary, patients' beliefs did not show a clear correlation with a reduction in fear of death. Participation in therapy was associated with a more positive attitude towards death in all three groups, but social support for the same individuals was decreased in all three categories. If we are looking for further reasons for all these outcomes, we need to consider the state of mind in which patients come to therapy, their individual beliefs, their own experiences, and their unique fears.

Keywords: attitudes towards death fear, religious belief, social support, cancer patients

DOES CANDIDA ALBICANS AFFECT PSEUDOMONAS AERUGINOSA SUSCEPTIBILITY TO COLISTIN?

Renata Timar[1], Iuliana-Ingrid Rusu[1], Anca Delia Mare, Alexandra Salajan[1], Gherghel Bogdan Vasile, Cristina Nicoleta Ciurea[1], Adrian Man[1]

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Background: Interactions between bacteria and fungi were found to enact effects on microbial behavior, survival, dissemination, antimicrobial response, and ultimately disease prognosis. In clinical settings, *Pseudomonas aeruginosa*, an opportunist pathogen with increasing resistance to antimicrobial drugs, might be found next to *Candida albicans*. **Objective:** To test in vitro if *C. albicans* presence can influence the susceptibility of *P. aeruginosa* to colistin, given the fact that both microorganisms are often isolated from patients with hard-to-treat infections, and their interaction may change their *in vivo* response to antimicrobial drugs. **Material and methods:** Standard 0.5 McFarland inocula were created by mixing fresh cultures of *C. albicans* ATCC 10213, and *P. aeruginosa* ATCC 27853 respectively in sterile saline solutions. The minimum inhibitory concentration (MIC) of colistin was tested by the broth microdilution method for *P. aeruginosa* alone and for *P. aeruginosa* mixed with *C. albicans*. Samples without added antibiotics served as positive controls, while samples with culture media alone served as negative controls. The microdilution plate was incubated at 37˚C for 24 hours. The MIC values were read according to the EUCAST recommendation. Further on, the minimum bactericidal concentration (MBC) was determined for *P. aeruginosa* alone, and compared with the MBC of *P. aeruginosa* cultured in the presence of *C. albicans*. Both determinations were made on solid Mueller Hinton and Sabouraud plates. The experiment was conducted in triplicate. **Results :** After incubation, the MIC of colistin in the well with *P. aeruginosa* alone was 1

mg/L. The MIC of colistin in the wells where *P. aeruginosa* was cultured next to *C. albicans* was also 1 mg/L. The MBC for *P. aeruginosa* was 2 mg/L in all the tested conditions (in monoculture, as well as in the presence of *C. albicans*). **Conclusions:** The co-existence between *P. aeruginosa* and *C. albicans*, *in vitro*, does not affect the bacterial susceptibility of colistin. Further studies are required to better understand how microbial interaction can influence the susceptibility to antimicrobial drugs.

Keywords: Pseudomonas aeruginosa, Candida albicans, colistin, MIC

THE INFLUENCE OF GLUCOSE ON MONO AND CO-CULTURES

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Background: *Escherichia coli* is a conditional pathogen rod-shaped bacterium commonly found in the lower gastrointestinal tract. *Candida* spp. is the leading cause of fungal-based diseases worldwide, causing infections in immunosuppressed, as well as immunocompetent hosts. **Objective:** To investigate the influence of glucose on the growth dynamics of: *E. coli*, *Candida albicans*, and *Candida parapsilosis* in mono-culture, as well as in co-culture. **Material and methods:** Standard 0.5 McFarland inocula were created using the following reference strains: *E. coli* ATCC 25218-495, *C. albicans* ATCC 10213, and *C. parapsilosis* ATCC 22013. Ten µl of each inoculum was mixed with a 990 µl sterile Muller Hinton (MH) liquid medium to study the growth rate of bacteria/ fungi alone. To study the microbial interaction, combinations between *E. coli* and *Candida* spp. were created, as well as between *C. albicans* and *C. parapsilosis*. To study the influence of glucose on the growth rate of the same samples, pure glucose was added on another set of samples, reaching a final concentration of 500 mg/dl, in each sample. The growth rate was assessed by spectrophotometry (600 nm) at: 0, 6, and 9 hours. The growth rate of the samples without added glucose was compared with the growth rate of samples with added glucose. **Results :** In the first 6-9 hours of incubation, in all samples with added glucose, higher values of the microbial populations were recorded. After 6 hours the incubation, in the samples with added glucose *E. coli* grew 30% more, *C. albicans* grew 150% more, *C. parapsilosis* 9% more compared with the samples without added glucose. After 9 hours, glucose enhanced the mono-cultures by 34% (*E. coli*), 17% (*C. albicans*) and 36% (*C. parapsilosis*). Mixed cultures, in the presence of a high concentration of glucose also displayed enhanced growth. After 6 hours, *E. coli* and *C. albicans* grew 23% more in the samples with added glucose, *E. coli* and *C. parapsilosis* grew 29% with the two *Candida* species grow 160%. After 9 hours, glucose-stimulated the growth of *E. coli* next to *C. albicans* by 35%, next to *C. parapsilosis* by 25%, while the *C. albicans* combined with *C. parapsilosis* showed a 22% growth increase in growth. **Conclusions:** The studied microorganisms had an increase in growth in the presence of glucose, showcasing the potency of glucose to influence the dynamics of polymicrobial interactions. Further studies are required to understand the complex inter-microbial interactions *in vivo*.

Keywords: Escherichia coli, Candida albicans, Candida parapsilosis, Glucose

UVA RADIATION EFFECTS ON THE EYE-TISSUES

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Background: Crosslinking is a process that uses UVA irradiations together with riboflavin to reduce the collagen's laxity. Controlled amounts of UVA light are already used in medicine to cure different skin diseases or keratoconus, but certain amount of irradiation could be harmful for tissues. Latest research targets crosslinking on tarsus, with the purpose of curing certain types eyelid laxity. However, when these irradiating procedures are performed, UVA also reaches surrounding tissues. **Objective:** The purpose of this study is to evaluate whether the histology of eye-tissues are affected by UVA irradiations, and what is the amount of UVA that penetrates specific tissues. **Material and methods:** For this experiment, 7 pig eyes were dissected. Small parts from sclera, eyelid, cornea, lens and vitreous body were harvested for irradiation with UVA light, at CCAMF Targu Mures. The intensity of irradiation was 75 mW/cm^2, for 3 minutes. Measurements regarding tissue penetration were recorded. Afterwards, the samples were preserved formalin and histology analysis was performed after hematoxylin-eosin standard staining. Optical microscope was used for morphology evaluation. **Results :** The irradiation process revealed that UVA light cannot pass through the sclera and that just a limited amount of the radiations penetrated through the cornea, lens

and vitreous body. Histological examination showed that there were no micropathological modifications in the eyelid, sclera and cornea after 3 minutes UVA exposure. **Conclusions:** The UVA irradiation with 75 mW/cm^2 for 3 minutes seems to be harmless for tissues of the eye. However, further extension of the study is necessary to evaluate neurons of the retina.

Keywords: UVA irradiation, Eye, tissue penetration

EPIGENETIC DYSREGULATION IN LIVER CELLS AFTER HEPATITIS C VIRUS ERADICATION

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Background: Direct-acting antiviral agents (DAA) had a profound impact regarding the treatment of hepatitis C infection, resulting in sustained virological response (SVR) in over 90% of patients that use DAA therapy. Although obtaining SVR was associated with a decreased risk of developing hepatocarcinoma (HCC), there are still direct (virus-induced) and indirect (fibrosis, inflammation related) factors that influence this possibility, even after HCV eradication. **Objective:** The aim of this study is to highlight the importance of epigenetic dysregulations that persist after using DAA and obtaining SVR, therefore explaining a part of the molecular pathway involved in hepatocellular carcinogenesis. **Material and methods:** An advanced search of the PubMed database was conducted, using Boolean querying: (hepatocarcinoma) OR (hepatocellular cancer) AND (epigenetic) AND (hepatitis C) NOT (hepatitis B) AND (direct-acting antivirals). The research resulted in 15 articles, out of which four did not meet the inclusion criteria. **Results :** Experiments using patient liver biopsies, cell cultures and chimeric animal models consistently found persistent changes in DNA methylation of cytosine-phospho-guanine (CpG) dinucleotides in regulatory gene elements, histone modifications and involvement of noncoding RNAs. HCV infection influences the expression of key genes that promote carcinogenesis: the inactivation of tumor suppressor genes by hypermethylation and hyperexpression of oncogenes by hypomethylation. Another change persistently found was acetylation of histone H3 at position lysine 27 (H3K27Ac), which is an activation marker for transcription that is considered to be an important causal factor for developing HCC after SVR. Other persistent histone changes were found: H3K9Ac, H3K4Me3, H3K4Me1, H3K27Ac,H3K27Me3, H3K9Me3. One of the mechanisms that is involved in these processes is related to the elevated expression of DNA methyltransferase 1 and 3b and histone deacetylase 1 induced by HCV core protein. HVC infection also deregulates non-coding RNA expression, which in turn affects gene expression and is linked to carcinogenesis. Importantly, it was found that more than half of the epigenomic modifications were persistent after treatment with DAA and obtaining SVR. **Conclusions:** HCV infection alters the epigenetic memory of hepatocytes, changes that persist even after obtaining SVR. These findings suggest that chemoprevention research should focus on finding "epidrugs" that would reverse the epigenetic imprinting left on liver cells, considering even personalized medicine. It is also important to acknowledge that the detection of patients with significant epigenomic dysregulations after DAA treatment might be a predictive tool for developing HCC.

Keywords: Epigenome, Hepatitis C Virus, Direct-acting antiviral, Hepatocellular carcinogenesis

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DETERMINING THE RISK OF MALIGNANCY OF THE ‘FOLLICULAR NEOPLASIA’ DIAGNOSTIC CATEGORY OF THE BETHESDA SYSTEM FOR REPORTING THYROID CYTOPATHOLOGY; EXPERIENCE OF A SINGLE LABORATORY AND LITERATURE REVIEW

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Background: The Bethesda System for Reporting Thyroid Cytopathology (BSRTC) is a universally accepted terminology system of communicating microscopic findings of thyroid fine needle (FNA) aspiration specimens. Its 4th diagnostic category, termed 'follicular neoplasia', considered an intermediate category, often proves to be difficult to correctly interpret, both for the pathologist and clinician, mostly due to the lack of definitive signs of malignancy. **Objective:** This study aims to evaluate the risk of malignancy (ROM) of this category based on cyto-histo correlation data from a single laboratory with literature review. **Material and methods:** Our retrospective study is based on the evaluation of cytology reports of fine needle aspirations (FNAs) performed between 2012

and 2023. During this period a number of 3642 FNAs were performed, including 3125 (89,5%) women and 367 (10,5%) men. We selected patients who had a Bethesda 4 category cytological diagnosis and underwent surgery. **Results :** 62 patients met the selection criteria. 52 (84%) were female and 10 (16%) were male patients. Average age was 50 years. Histological examination showed a benign tumour in 43,5% of cases, malignancy in 27,5% and non-neoplastic lesions in 29% of the cases. Based on these values a ROM of 28,6% was calculated. Literature data indicates a mean value of 30, interval 23-34, that varies according to whether NIFTP is included or not. **Conclusions:** The 'follicular neoplasm' category of BSRTC remains to be a problematic diagnostic entity, however the periodic use of cyto-histo correlation aids greatly in fine-tuning diagnostic criteria and also acts as a quality control measure.

Keywords: thyroid, cytopathology, Bethesda system, risk of malignancy

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THE INFLUENCE OF SOCIAL MEDIA ON ADULT POPULATION VACCINATION DECISION

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Background: Social media platforms are digital platforms that can be accessed from any central unit, phone, or tablet connected to the internet. Users utilize these networks for virtual connection and increasingly for information gathering. In the medical field, documenting information obtained from online sources is essential. By verifying the sources of information, one can avoid forming preconceived ideas about a medical subject, in this case, vaccination. **Objective:** The main objective of this study is to verify whether the level of education, medical studies, time spent online, and the number of active accounts on the two presented social networks, Facebook and Instagram, can modify users' perception of the information read about the vaccination process and subsequently influence their vaccination decision. **Material and methods:** To verify these aspects, we conducted a cross-sectional study using a questionnaire distributed online, targeting both individuals with medical studies and those without. The questionnaire consists of 30 questions, allowing for multiple responses, which aim to gather demographic data in the first part and assess the level of education. Subsequently, we examine the time spent online, reading information about vaccines, source verification, the psychological impact of this information, and the user's opinion on these matters. **Results :** The study involved a total of 258 participants, excluding individuals under the age of 18, of which 25.97% had medical studies, while 74.03% did not. Regarding educational level, 58.53% had higher education, demonstrating a statistically significant mild positive correlation between being a student and being informed from medical journals($r = 0.36$, $p < 0.001$). About 54% of respondents had active accounts on both social media platforms, with over half stating that they had read information about vaccines. Among those with medical studies, the majority reported obtaining information from medical journals, specialized publications, or their family doctor. **Conclusions:** More than half of the participants in the study spend a significant amount of time online, both on Facebook and Instagram, with a significant percentage stating that they have read information about vaccines, thus being prone to misinformation if the source is not verified. The level of education, especially holding higher education or medical studies, is a factor that influences the source of information, perception, and the user's feelings regarding vaccination.

Keywords: Research, Medical Studies, Level of education, Vaccine

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THE ASSOCIATION BETWEEN BREAST CANCER AND THYROID CANCER - AN INSTITUTIONAL EXPERIENCE AND LITERATURE REVIEW

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Background: Breast cancer is one of the most frequently diagnosed malignant tumors in women. It is also the second most common malignant tumor in terms of tumor-associated death rate. The average risk of mortality is 2.6% (1/39 chance), which gradually decreases in developed countries. Thyroid cancer, compared to other adulthood tumors, is discovered at younger ages. It is three times more common in women, and its incidence has shown a rapid increase in recent years, which has not been followed by a parallel rise in mortality. Some studies point to a closer association between the two diseases. **Objective:** Our retrospective study examines the co-occurrence of thyroid and breast cancers among patients who underwent fine needle aspiration cytology (FNAC) and reviews the related literature. **Material and methods:** Our study is based on 3765 thyroid FNACs performed

between 2012-2023, corresponding to 3615 patients. **Results :** In the examined material, we identified 51 patients with documented breast lesions, 3 of which were benign and 48 malignant lesions. In 8 of these patients, the FNAC test indicated thyroid cancer (Bethesda category either 5 or 6). Surgical follow-up was available in 5 cases. Literature review: According to literature data, thyroid cancer (as a second primary tumor) appears in significantly higher numbers in patients diagnosed with breast cancer. In contrast, in patients diagnosed with thyroid cancer, the risk of developing breast cancer (as a second primary tumor) only increased moderately. **Conclusions:** Moreover, thyroid follicular cancer is more common in patients with breast cancer, and thyroid nodules are more common in general; in addition to benign breast diseases, the incidence of thyroid cancer is similarly increased. Light has also been shed on some clinical features: breast cancer following thyroid cancer is more often hormone-receptor-positive, presenting at a younger age. Thyroid cancers following breast cancer are smaller, more aggressive, and more common if the breast cancer is HER2 positive. In men, the association is more pronounced (bidirectional), and in both types of malignant tumors, the risk of appearance of the other is greater.

Keywords: thyroid cancer, breast cancer, Bethesda system, synchronous tumors

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COMPREHENSIVE ANALYSIS OF CRANIAL NERVE SCHWANNOMA CASES: INSIGHTS FROM A RETROSPECTIVE STUDY OF THE PAST 3 YEARS AT SCJU TÂRGU MUREȘ

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Background: A schwannoma is a type of neural tumor that arises from the glial cells of the peripheral nervous system and accounts for 8% of intracranial tumors. The vestibulocochlear nerve pair is most frequently associated with this neurinoma, less frequent localizations are the trigeminal, facial and glossopharyngeal nerve. Their appearance in conjunction with other cranial nerves is uncommon. **Objective:** This study's goal was to examine the demographics and clinicopathological aspects of cranial nerve schwannoma cases that were diagnosed in our hospital between 2021 and 2023. **Material and methods:** All schwannoma cases registered in our hospital records between 2021 and 2023 were subjected to our retrospective analysis. Demographic information of the patients, clinical diagnosis and histopathological results were gathered. We excluded cases that had incomplete data. **Results :** Between 2021 and 2023, a total of 16 cases of cranial nerve schwannomas were recorded. The majority of patients were female, constituting 87,2% of the cases, while males accounted for 12,5%. The average age of the patients was 57,75 years. Among the affected cranial nerves, the vestibular nerve was predominantly affected, found in 87,5% (n=14) of cases. Additionally, 1 case involved the olfactory nerve and 1 the trigeminal nerve. **Conclusions:** In conclusion, the study indicates a higher prevalence of cranial nerve schwannomas among females, with an average age of onset around 57,75 years. While the vestibular nerve was primarily affected, in a few cases there were also incidental impacts on cranial nerve I and V. These findings underscore the need for further research and emphasize the importance of thorough diagnostic evaluation in clinical practice.

Keywords: schwannoma, benign, cranial nerve, vestibular

LIPOXINS AS POTENTIAL THERAPEUTIC MEDIATORS IN DIABETES-ASSOCIATED ATHEROSCLEROSIS

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Background: Diabetes mellitus type 2 (DMT2) represents a disorder of glucose homeostasis, characterized by inadequate insulin secretion and resistance (IR) to insulin action in target tissues. The subsequential chronic hyperglycemic state leads to stimulation of a pro-inflammatory milieu, a crucial factor in mediating atherogenesis in all its stages and progression to macrovascular complications of DM, namely diabetes-associated atherosclerosis (DAA). Lipoxins (LXs) are eicosanoid-derived specialized pro-resolving mediators (SPMs), endogenous molecules which, through activation of several pathways, have been proven to restore homeostasis and promote inflammation resolution. Provided the inflammatory implications in "athero-progression", utilization of LXs in modulation of DAA development is contemplated here. **Objective:** This work aims to assess the potential therapeutic role of LXs in blocking and reversing atherosclerosis associated with DMT2. **Material and methods:** An extensive English literature search was conducted on PubMed and Google scholar on 23.03.2024. The selected articles were published between 2010 and 2024 and presented the keywords "diabetes mellitus",

"atherosclerosis" "specialized pro resolving lipid mediators", and "lipoxins". A total of 15 articles were examined within this work, including a novel study for each therapeutic approach. **Results :** Aspirin creates an endogenous mimetic of LXA4, aspirin-triggered lipoxin A4 (ATL), by cyclooxygenase 2 acetylation. A prospective clinical trial investigating the association between systemic inflammation, insulin resistance (IR) and incidence of peripheral artery disease (PAD) and vein graft stenosis showed that ATL levels were significantly decreased in PAD patients (1,06+/-0,81 ng/ml), as opposed to the control group (1,72+/-1,08 ng/ml). Moreover, ATL inhibited vascular smooth muscle cell (VSMC) chemotaxis, important in atherogenesis, via modulation of the platelet-derived growth factor (PDGF) receptor activation, in human saphenous vein SMC cultures. Treatment with LXA4 or Benzo-LXA4 of diabetic Apo−/− murine models significantly attenuated aortic plaque development. 6-week administration of LXA4 or Benzo-LXA4 was effective in decreasing progression of established atherosclerotic lesions- diabetic+vehicle (19,22+/-2.01%) versus diabetic+LXA4 (12.67+/-1,68%) and diabetic+Benzo-LXA4 (13,19+/-1,97%)- with a 30% reduction in aortic arch plaque burden. **Conclusions:** LX treatment demonstrated its efficacy in modulation of atherogenesis and regression of established DAA. Further human studies investigating LX therapeutic potential must be carried out in order to introduce these agents in future treatment paradigms. **Acknowledgments:** This work was supported by the George Emil Palade University of Medicine, Pharmacy, Science and Technology of Târgu-Mureș, Junior Researcher Academy Initiation Research Grant number NR. 311/2/10.01.2024, with the title "Utilization of lipoxins and other SPMs in the prevention and treatment of diabetic nephropathy and diabetic cardiovascular disease".

Keywords: diabetes mellitus, atherosclerosis, specialized pro resolving lipid mediators, lipoxins

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AGE-RELATED CHANGES IN LIP ANATOMY: LIP PROJECTION TO E-LINE

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Background: Age-related alterations in lip anatomy, morphology, and physiological characteristics are crucial factors in estimating age based on facial features, as documented in numerous studies. However, while the majority of research has concentrated on the elongation of lips, lip thinning and changes in oral commissure position with aging, there is a notable scarcity of evidence regarding the anterior projection of the lips to the E-line and their relation to the naso-mental angle. **Objective:** The purpose of this study was to investigate age-related differences in lip position relative to Ricketts' aesthetic plane, also known as the "E-line" Also, to investigate age-related naso-mental angle and collumela-labial angle changes and how this correlates with anterior lip projection. **Material and methods:** 208 female subjects were included in this study. The inclusion criteria were: age over 20, no previous aesthetic treatments in the lower face, and presence of complete natural arches or prosthetically restored arches with dental bridges. The study population was stratified into 3 age categories as follow: Group 1 comprised individuals aged 20-39, Group 2 included individuals aged 40-59, Group 3 consisted of individuals aged 60 and above. Each subject was photographed using a Canon camera, and the obtained photographs were uploaded into the 3D imaging system VECTRA H2 (Canfield Scientific, USA). Lip projection was evaluated by measuring the distance (mm) from a reference plane E-line (Ricketts' plane) to the most prominent point of both the upper and lower lip. Also the software automatically measured columella-labial angle and naso-mental angle. The results were statistically analyzed using descriptive statistics and correlation tests. **Results :** The distance from the most prominent point of the upper lip to E-line was smaller in younger patients than in elderly and increased with aging. The same results were observed regarding lower lip position to E-line in the 3 study groups. Also there was a correlation between anterior lip projection and naso-mental angle. The value of naso-mental angle did not change significantly with aging. There were no significant correlations between columella-labial angle and anterior lip projection. **Conclusions:** The results confirm the hypothesis that aging in oral region comes together with some anatomical changes, including retrusion of both upper and lower lip, partially due to soft tissue changes and partially due to bone remodeling.

Keywords: lip anatomy, aging, E-line

GENETIC AND BIOCHEMICAL STUDIES IN ALZHEIMER'S DISEASE (AD), A NEURODEGENERATIVE DISORDER

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Background: Situated within the broad spectrum of neurodegenerative disorders, AD is known for its complexity, heterogeneity, multiple genetic mutations, epigenetic and biochemical modifications, and irreversible evolution from early stages characterized by deficits in the ability to encode and store new information to subsequent progressive cognitive, functional, behavioral decline. **Objective:** The central focus of the conducted investigation was to consolidate comprehensive statistics, identify genetic determinants and delineate their intricate correlations with environmental factors, thus highlighting the significance of implementing assessment programs and early introduction of medication, in order to decelerate the progression of neurodegenerative processes. **Material and methods:** The first part consisted of analyzing specialized literature, articles published in the last 35 years regarding the mechanisms involved in the onset of this pathology, exploring a wide range of hypotheses, progression stages and treatment possibilities while writing an extensive review. The retrospective study encompassed individuals admitted to the Neurology Department of "Iacob Czihac" Military Emergency Hospital Iași between 01.01.2023 and 31.12.2023. Out of 1012 patients hospitalized with chronic neurological diseases, 98 were diagnosed with AD in various stages. Twenty-one cases (21.429%) exhibiting genetic predisposition were selected and thoroughly analyzed based on medical records. Additionally, the study included a small group of patients from Vrancea, in order to conduct a comparative analysis, both by comparing to the extended cohort and to global statistics, while focusing on a few cases of late-onset familial AD. **Results :** The study emphasizes the significant position of AD among chronic neurological diseases. Although the majority do not present hereditary antecedents (78.57%), predisposing diseases (TBI, T2D, hypercholesterolemia, hypertension, obesity), stress, environmental factors (smoking, alcohol, pesticides, aluminium, organic solvents), as well as the region of residence, play fundamental roles in the determinism. It is observed that individuals in the 60-70 age category (68.36%) from urban areas (70.41%), especially females (62.24%), have a higher probability of developing AD. Maternally transmitted Alzheimer's prevalence was 57.143%, while paternally inherited AD accounted for 33.333%, with only 2 cases having antecedents on both lines (9.524%). **Conclusions:** Unequivocally characterized by a vast etiology, neurotrophin depletion, cerebral atrophy, mitochondrial dysfunction, accumulation of neurofibrillary tangles and senile plaques following the appearance of allelic variants (APOE4, MAPT, APOJ, SORT1) or dominant autosomal mutations (PSEN1/2, APP), AD is a multifactorial disorder resulting from the bilateral interaction between genetic and environmental factors or solely one of them. However, the transition from vulnerability to the actual disease is achieved through the continuous corroboration of these two major classes of factors.

Keywords: Alzheimer, Neurodegeneration, Multifactorial, Hereditary

INTERPLAY BETWEEN PSEUDOMONAS AERUGINOSA AND STAPHYLOCOCCUS AUREUS: INSIGHTS FROM IN VITRO STUDIES

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Background: Pseudomonas aeruginosa and Staphylococcus aureus are clinically significant bacteria known for causing various infections, including chronic wounds, burn wounds, cystic fibrosis airways, and medical device-associated infections. Co-infections involving these pathogens are common and pose significant challenges in treatment, possibly also due to the potential interactions between the two bacteria. **Objective:** The study aims to investigate the reciprocal influence of P. aeruginosa and S. aureus on each other's growth dynamics during co-culture in vitro. **Material and methods:** Standard 0.5 McFarland suspensions of P. aeruginosa and S. aureus were prepared. Ten microliters of each suspension were inoculated separately into 10 mL of Mueller-Hinton broth. Additionally, a mixture of both strains was prepared by inoculating 5 µl of P. aeruginosa and 5 µl of S. aureus into 10 mL of broth. The probes were transferred in separate tubes and incubated for 24 hours at 37°C. The optical density was measured using a spectrophotometer at 600 nm. Subsequently, one microliter of each broth culture

was aseptically inoculated onto separate plates of Mannitol Salt Agar (MSA), Mueller-Hinton Agar (MH), and MacConkey Agar (MC), in triplicate. The colonies were counted by the IUL Flash & Grow" counter. The data were analyzed by comparing the OD/colony numbers of co-culture samples with the data from culturing the bacteria alone and the results were expressed as percentages **Results :** In the probes containing S. aureus and P. aeruginosa combined there was an increase in the OD by 115% compared with S. aureus alone, and an increase of 52% compared with P. aeruginosa alone. By counting the colonies on MSA, there was a 127% increase in the number of S. aureus colonies in the coculture sample, compared with the monoculture of S. aureus. While culturing P. aeruginosa on MC and MH, confluent growth was observed. r. **Conclusions:** The results suggest a dynamic interplay between P. aeruginosa and S. aureus in co-culture, indicating potential implications for the pathogenesis and treatment of polymicrobial infections. Further studies are warranted to elucidate the underlying mechanisms of interaction and their clinical relevance.

Keywords: Pseudomonas aeruginosa, Staphylococcus aureus, co-culture, in vitro

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HISTOPATHOLOGICAL CHANGES ASSOCIATED WITH ROAD TRAFFIC ACCIDENT INJURIES - STUDY BASED ON AUTOPSIES.

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Background: Fatalities related to road traffic accidents (RTAs) are classified as "unusual death" and are subject to an autopsy. Forensic histopathology establishes the cause of death based on microscopic analysis of tissue samples collected from internal organs, also taking into account the macroscopical findings for interpretation. **Objective:** This study aims to investigate the histopathological findings in RTA victims and to identify patterns of injuries and correlations between microscopic and macroscopic changes in the major organs. **Material and methods:** We collected 94 consecutive autopsy reports of RTA victims from the Institute of Forensic Medicine of Târgu Mureș, performed between 2020 and 2021. A cross-sectional observational study was carried out. We investigated the distribution of age and gender. Microscopic and macroscopic findings in the brain, heart, lungs, and liver were analyzed. **Results :** Of all 94 autopsies, 76 were male and 18 were female, with an average age of 49 years (6 months-87 years). Almost every report included a brain sample (90/94) and it was microscopically examined in 70% of cases. The most frequent macroscopic findings were cerebral edema (59,5%), followed by cerebral contusion and laceration (43,6%) and subarachnoid hemorrhage (31,9%). Cardiac muscle samples were included in 89,3% of reports and were microscopically examined only in 43,6% of cases. Macroscopic cardiac lesions related to RTA (ventricular laceration and contusion) were identified in 12 cases (14,2%) and many of them (75%) were also microscopically confirmed. Chronic cardiac lesions were noted in 60% of cases and were confirmed microscopically in 70% of examined cases. Lung samples were taken in almost all cases (93/94) and were microscopically examined in 91,4% of cases. Both lung contusion and bronchopneumonia were macroscopically seen in 29% and bronchopneumonia was microscopically found in 36,1% of cases. Liver samples were taken in 73% of cases and microscopically examined only in 31,9%. Macroscopic changes related to RTA, especially liver laceration, were seen in 30% of reports and were confirmed microscopically in 61,9% of cases. **Conclusions:** Information obtained in this study helps to establish injury patterns related to RTA. Most of the gross findings had significant microscopic resonance. Correlation between the lesions found in the major organs gives an enhanced comprehension of the contributing factors in the cause of death.

Keywords: road traffic accidents, histopathology, macroscopic and microscopic examination

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THE UTILITY OF SCORES IN DIFFERENTIATING STEATOSIS, STEATOHEPATITIS, AND FIBROSIS.

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Background: Steatotic liver disease is one of the most common hepatic disorder, which poses a significant economic and health burden worldwide. It can manifest through a wide spectrum of disorders, from steatosis to steatohepatitis, fibrosis, cirrhosis, and ultimately hepatocellular carcinoma. Accurately quantifying the presence and severity of liver disease holds paramount importance in devising therapeutic approaches, prognosis, and stratifying the potential complication risks. **Objective:** The aim of this study was to investigate the effectiveness of

widely available biomarker-based scores in identifying liver-related pathological conditions and their stages. **Material and methods:** A narrative review was carried out following an extensive search of scientific articles in English with reference to clinical trials published between 2009 and 2024 in major scientific databases, in particular: PubMed, Mayo Clinic Laboratories and Cochrane. Among the 356 articles studied, only 142 were chosen for inclusion in the study. **Results :** The phenomenon of hepatic steatosis has shown a vertiginous increase in recent years, where the evolutionary cascade from steatosis to steatohepatitis, fibrosis, and cirrhosis takes more complex diagnostic forms, while the use of invasive tests involves additional risks. Although liver biopsy remains the gold standard for definitive diagnosis and staging of chronic liver disease, it is not the most accessible and suitable, due to its significant resource requirement, inherent invasiveness, and susceptibility to sampling error. In this context, the use of hepatic scores based on serological biomarkers constitutes an alternative, promoted as instruments to address the challenge of early risk stratification in hepatic disease, predict liver-related outcomes, and guide therapeutic interventions. The FibroTest, ActiTest, and SteatoTest have been patented as 'in vitro diagnostic multivariate index assays' designed for the assessment of fibrosis and steatosis grades. These assays are accessible online and incorporate clinical security algorithms adjusted for age and gender. It is noteworthy that these scores exhibit varying performance characteristics across different liver disease contexts, decreasing the necessity for invasive investigations, being rapid to perform and analyze, cost-effective, and reproducible. They also distinctly differentiate between various entities in liver pathology, such as inflammation and fibrosis, while remaining unaffected by impairment in liver function. Furthermore, they possess the capability to predict both progression and regression of liver conditions. **Conclusions:** Noninvasive scores are easy and nonexpensive tools to screen for steatosis, steatohepatitis and advanced fibrosis. Furthermore, these scores can be applied across a broad spectrum of patients, facilitating early diagnosis and reducing the incidence of patients identified in advanced stages of the disease.

Keywords: Noninvasive diagnosis,, Hepatic scores,, Steatosis,, Steatohepatitis,

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THE CARDIOVASCULAR EFFECTS OF N-ACETYLCYSTEINE IN A HEALTHY RAT MODEL OF FAST-PACED EXERCISE: A STUDY ON OXIDATIVE STRESS, INFLAMMATION, AND TRANSMISSION ELECTRON MICROSCOPY

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Background: A common protocol among athletes is progressive increase in exercise strenuousness. The additional metabolic requirement leads to higher electron transport chain activity, resulting in supplementary amounts of reactive oxygen species (ROS). In the cardiovascular system, ROS regulate blood pressure, but may also cause damage. Thus, antioxidants are increasingly utilized because of their ability to aid the body's defense mechanisms. **Objective:** The study investigated the in vivo cardiovascular effects of N-acetylcysteine (NAC), a glutathione precursor and popular antioxidant among athletes, on a healthy male rat model that underwent progressive fast-paced exercise. **Material and methods:** Treatments were administered orally for four weeks, before exertion, as follows: Control group (given normal saline, n=10) and NAC group (given N-acetylcysteine, n=10). The exercise duration consisted of five-minute rounds at progressive speeds. Samples of heart and aorta tissues were collected on the final day of the experiment for oxidative stress, inflammation, and transmission electron microscopy (TEM) examination. **Results :** Oxidative stress analysis in heart samples revealed that NAC significantly decreased lipid peroxidation, and increased antioxidant protection. Upon TEM, the Control group displayed an altered endocardium. The NAC group exhibited a typical heart intima, with only some instances of media alteration. In the aorta, NAC decreased the lipid peroxidation, whilst significantly increasing both iNOS and TNF-α. Upon TEM examination of the aorta, the Control group displayed an altered intima, similar to the NAC group. **Conclusions:** N-acetylcysteine exhibited notable antioxidant effects in the heart. Nevertheless, it failed to protect against the observed ultrastructural damage. In the aorta, NAC effectively reduced lipid peroxidation, however, its concurrent increase in pro-inflammatory cytokines resulted in only moderate protection of the intima against exercise-induced ultrastructural damage.

Keywords: Treadmill running, N-acetylcysteine, Cardiovascular, Antioxidant

ASPECTS REGARDING THE ACTIVITY OF STUDENTS IN MEDICINE IN ROMANIA AND ITALY

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Background: Practical activities and clinical skills are part of the development of a good future doctor. It is imperative that they be found in the curriculum of any medical university. **Objective:** The focal point of this study is the presentation of various practical aspects of clinical activity throughout the years of university and the impact they have on medical students, both from Romania and Italy. **Material and methods:** For this research, we used a questionnaire composed of a number of 29 questions conducted on the platform Google Forms which was shared online among students at medical schools in Romania and Italy. This is a descriptive, comparative and transversal study. A database was created in the Microsoft Excel program, where responses to the questionnaire were entered, after which the data was homogenized and encoded. We coded the two lots in 1 and 2, the group studying in Italy was coded as lot 1, and the lot doing its studies in Romania was coded as lot 2. **Results :** Over 90% of students in group 1 and 72% in group 2 felt they were not satisfied with the way the practical activities are carried out. A statistical difference was obtained with a value of p = 0.008, resulting in students in group 1 being about 20% more dissatisfied with practical activities compared to their colleagues in Romania. **Conclusions:** Even if there are dignified differences between the two lots, there are similarities, both being formed mostly by students who want to actively participate in practical activities, wishing to assimilate as many skills as possible. Simulations of clinical situations or new methods by which they can develop their practical skills, are ideas that could make the clinical stage more captivating for medical students.

Keywords: medical student, clinical stage, medical education

COMPARATIVE STUDY BETWEEN MEDICAL AND NONMEDICAL STUDENTS WITH A BLOOD DONATION

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Background: Currently, more than 110 million units of blood are collected annually globally. Nearly half of these come from developed countries, whose populations account for less than 20% of the world's population, but there is still a major shortage of blood. **Objective:** It is well known that the rate of blood donors in very low, which faces challenges due to lack of information and public awareness about the importance of blood donation. This study is designed to identify the perspective differences on blood donation between students with medical backgrounds and those without. **Material and methods:** This research is a transversal study performed between January and March 2024, using an online survey. The questionnaire was shared on social media platforms to gather information about the population perspectives on blood donation according to their academic background. The statistical analysis was performed using Chi-Square test. **Results :** Out of the 140 responses, 109 are medical students while 31 are students without any medical background. Of these 109 only 52 (47,7%) are blood donors, and of the 31 non-medical students only 10 (32,3%) have donated blood (p=0.127). Comparing the level of knowledge about blood donation on a scale of 1 to 5, most non-medical students have a level of knowledge between 1-3 (58.1%) and medical students have a higher level of knowledge between 4-5 (81.6%) (p<0,001). The most used sources of information on this topic for both categories are the internet, 73 (67%) medical students and 29 (93.5%) non-medical students, (p=0.003) followed by friends and acquaintances, 43 (39.4%) medical students and 18 (29.5%) non-medical students (p=0.065). When asked why they chose to donate blood most chosen responses were "donate regularly" (p=0.310) and "donate to help a family member or friend" (p=0.109). For both categories the study showed that the reason students do not donate blood is fear of needles, 20 (35.08%) medical students and 9 (42.8%) non-medical students (p=0.254) and weight <50 kg, 18 (31.5%) medical students and 6 (28.57%) non-medical students (p=0.197). **Conclusions:** The study reveals that under 50% of all respondents are blood donors, medical profile students have a higher level of knowledge about blood donation. The main sources of information for non-medical students are the internet, friends and media, while medical students get their information from studies, family medical and the internet.

Keywords: blood donation, medical students, non-medical students, level of knowledge, questionnaire

CORRELATION BETWEEN ALZHEIMER'S DISEASE TISSUE MORPHOLOGY AND MONOMERIC C-REACTIVE PROTEIN DISTRIBUTION: AN IMMUNOHISTOCHEMICAL STUDY

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Background: Alzheimer's Disease (AD) is the most prevalent cause of dementia and is associated with loss of cognition and deterioration in function and behaviour. Various inflammatory and morphological changes occur because of AD pathology along the perivascular neurons, glial cells, and cerebral blood vessels. Monomeric C-reactive protein (mCRP), the biologically active subunit of CRP, is potentially a major biomarker of neurodegeneration, appearing concomitantly through all affected regions of the brain, most likely by direct transference through the vascular system, and potentially disrupting the normal structure of the neurovascular unit. **Objective:** The aim of this study is to highlight the correlation between AD and mCRP distribution in glia and vasculature, by utilising an immunohistochemical approach. **Material and methods:** Samples of brain tissue from the Brain Bank in Bristol (UK) that were obtained postmortem and diagnosed positive for AD based on NIA-AA guidelines, were immunostained with mCRP-specific monoclonal antibody (8C10). 9 samples from different patients were visualized by microscopy using 4x, 10x, 20x and 40x magnification **Results :** Of the 9 patient samples examined, 7 showed visible and specifically mCRP positive regions, that comprised vascular structures, glial cells and other regions of abnormal looking brain tissue, with some of these being consistent with damaged tissue seen after a stroke episode or post-infarction. The major morphological findings were: 1. The abnormal-looking tissue with local inflammatory response and vascular disruption had a strong mCRP staining spotlighted histologically with positively stained glia and covered vessels with mCRP. 2. The unaffected or normal-looking tissue areas were negative for mCRP staining, and there was no evidence of mCRP within the vessels, glial cells and parenchyma. 3. The mCRP staining was mainly present in vessels and extracellular matrix (ECM); 6 out of 9 samples had mCRP-positive vessel staining and only 4 out of 9 were accompanied by positive glial cells in the proximity of the small (micro) and medium vessels. **Conclusions:** The positive mCRP stained regions were mainly areas with evidence of abnormal structure with inflammatory infiltration, disorganised architecture and/or infarction, where the neurovascular and neuro-glial units were most likely compromised by these insults. This study shows a high correlation between inflammatory regions, and vasculature and ECM expression of mCRP within brain tissue. Accumulation around these structures emphasizes the credible link between mCRP and the development of neurodegeneration in critical components of the brain cognitive function

Keywords: Alzheimer's disease, mCRP, immunohistochemistry, glial-vascular unit

FAT CELL INTEGRATION WITH 3D TECHNOLOGY. ADVANCES IN REGENERATIVE MEDICINE AND BIOMECHANICAL PROFILING

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Background: Peripheral nerve injury is a common problem. One potential solution is the use of stem cells to promote nerve regeneration. Traditional nerve repair such as autografts and allografts have limitations due to donor site morbidity and limited availability of donor nerves. Stem cells have the ability to differentiate into multiple cell types and can potentially replace damaged cells in the nervous system. **Objective:** The use of stem cells for peripheral nerve regeneration is an exciting area of research with the potential to revolutionize treatment options for patients with nerve injuries. 3D printed guides from biocompatible materials are selected to be compatible with neural cell cultures and can be modified to support the growth and differentiation of these cells. 3D printing creates complex, anatomically customized structures that guide axon growth in specific directions and support the growth of stem cell-induced neurons. **Material and methods:** We created a biocompatible 3D printed conduct made of polylactic acid (PLA) to act as a guide for nerve growth and filled it with stem cells obtained from rat adipose tissue. A defect of 10 mm was created at the level of sciatic nerve on 18 Wistar rats and were formed 3 groups. First group (7) were treated with 3D printed conducts filled with stem cells. Second group (7) were tretaed with 3D

printed conduct. The third group (4) was the control group. **Results :** After 12 weeks we harvested the tube with the proximal and distal heads of the nerve for histopathological examination and the tibialis anterior muscle for biomechanical testing. Group with 3D-printed guide and stem cells- with normal nervous structures grown inside the tube, biomechanical the muscle was almost similar with a normal specimen. Group with 3D-printed guide- with nervous structure grown inside but with inflammatory cells and edema and with worse biomechanical results. On control group no nerve regeneration was observed and without biomechanical activity. **Conclusions:** Nerve regeneration represents a challenging aspect in modern medicine but the histological aspects and the biomechanical tests presented in our experiment are an optimistic sign in the treatment of nerve defects with potential for the future of peripheral nerve surgery.*This research was founded by George Emil Palade University of Medicine, Pharmacy, Science and Technology of Targu Mureș, Romania, grant number 510/18/17.01.2022.*

Keywords: nerve regeneration, stem cells, 3d printing, adipose tissue

CLINICAL - MEDICAL

ELEVATED LIPOPROTEIN (A) LEVEL PREDICTS CORONARY EVENTS IN YOUNG PATIENTS

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Background: High levels of lipoprotein(a) [Lp(a)] have been identified as a risk factor for cardiovascular diseases, particularly atherosclerosis and coronary heart disease. The Lp(a) it is just one among several factors that contribute to the overall risk. The impact of Lp(a) levels on an individual's risk of acute coronary syndrome (ACS) can vary. To date some individuals with elevated Lp(a) may not experience cardiovascular events, while others with lower levels may still be at risk due to other factors. **Objective:** The aim of the present study was to investigate the characteristics associated with increased Lp(a) levels in patients presenting with acute coronary syndrome (ACS). **Material and methods:** The study included 130 patients with ACS who underwent emergency percutaneous coronary intervention in the Cardiology Department of the Clinical County Emergency Hospital Târgu Mureș. The patients were divided into two groups based on their Lp(a) value: group 1 (n=87) with Lp(a) < 30 mg/dL and group 2 (n=43) with Lp(a) ≥ 30 mg/dL. For all patient demographic and clinical data were collected and analyzed. Correlation analysis was used to determine the association of clinical characteristics with elevated Lp(a). **Results :** Patients with elevated Lp(a) values were significantly younger (56.86 ± 14.70 years vs. 62.14 ± 10.41 years; p= 0.01). Patients with Lp(a) below 30 mg/dL were more likely to present hypertension, diabetes mellitus, and dyslipidemia compared to patients with elevated Lp(a) values (all p <0.05). Furthermore, in the correlation analysis, a significantly negative association was observed between Lp(a) and the age of the patients (r= -0.53; p< 0.0001), respectively the value of high-density lipoprotein-cholesterol (r= -0.25; p= 0.004). **Conclusions:** According to the findings, patients with ACS and high Lp(a) values were younger and had fewer traditional risk factors for ischemic coronary artery disease. The Lp(a) screening may be of great importance in addressing cardiovascular risk in young patients, especially in the light of primary prevention.

Keywords: acute coronary syndrome, cardiovascular risk, lipoprotein (a)

THE LINK BETWEEN LIPOPROTEIN(A) AND ACUTE CORONARY SYNDROMES IN PATIENTS WITH DIABETES

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Background: Acute coronary syndromes (ACS) represent one of the main causes of mortality and morbidity worldwide, with their incidence continuously increasing due to associated risk factors. A risk factor that has recently come to the attention of the public is lipoprotein a [Lp(a)], which has been shown to be an important predictor of ischemic coronary disease. However, the role of Lp(a) in the etiopathogenesis of ACS in patients with diabetes mellitus (DM) is not yet fully known. **Objective:** The study aims to underline the link between Lp(a) and ACS in individuals with DM. **Material and methods:** The study included 196 consecutives patients admitted into the Cardiology Department of Emergency Clinical County Hospital Târgu Mureș with ACS, who underwent percutaneous coronary interventions. The patients were divided into two groups according to the presence of DM - Group 1, 109 patients without DM, and Group 2, 87 patients with DM. For all patients serum level of high sensitive C reactive protein (hsCRP), Lp(a), triglycerides (TG) were also assessed. **Results :** Patients with DM were significantly younger compared to those without DM (60.17 ± 7.03 vs 55.54 ± 14.36, p = 0.004), with no difference in terms of gender distribution (p=0.25), but the smoker status was more frequent found in patients without DM (p=0.008). Also, it was observed that patients with DM present a significantly higher inflammatory level (2.21 ± 0.35 mg/dL vs 5.64 mg/dL ± 0.75, p = 0.002) and triglyceride values (153.40 ± 20.68 mg/dL vs 239.90 ± 19.10 mg/dL, p<0.0001). Moreover, the Lp(a) seric levels in group 2 were significantly higher compared to group 1 (0.15 ± 0.09 g/L vs 0.33 ± 0.05 g/L, p<0.0001). **Conclusions:** Patients with concomitant ACS and DM are younger and showed a more pronounced serum Lp(a) level with a more exacerbated inflammatory status, while patients without DM were more prone to present the traditional risk factors for ACS.

Keywords: Diabetes mellitus, acute coronary syndromes (ACS), lipoproteina(a), hsCRP

CORREA CASCADE: THE EVOLUTION OF ATROPHIC GASTRITIS TO GASTRIC ADENOCARCINOMA

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Background: Atrophic gastritis is a chronic inflammatory process that involves the gastric mucosa, resulting in loss of the glandular component. It is categorised into type A atrophic gastritis and type B atrophic gastritis. Type A, autoimmune based, caused by autoantibodies against parietal cells. Type B, results as a consequence of not properly treated acute gastritis induced by Helicobacter Pylori. The stomach is an organ prone to intestinal metaplasia, a reversible process that consists in the conversion of a gastric epithelial area into a wholesome intestinal epithelial area. Nevertheless, it has an increased risk of progression to gastric neoplasia. Indeed, atrophic gastritis is classified as pre-cancerous illness. **Objective:** The aim of this study is to analyse the incidence of progression of atrophic gastritis into gastric adenocarcinoma. **Material and methods:** The research was conducted through 10 academic articles from scientific databases including American Gastroenterology Association (AGA), Pub Med and Google Scholar, to compare different studies carried out on the correlation between the disease and the possibility of progression to neoplasia. **Results :** The evolution of the disease varies based on its extension and severity. Patients at greatest risk of cancer are those whose inflammation extends to the entire stomach, from the body to the pylorus, and are classified according to two staging systems: OLGA (Operative Link Gastritis Assessment) and OLGIM (Operative Link Gastritis Assessment based on intestinal metaplasia). The evolution of the disease is described through the "CORREA CASCADE". The first step is the development of a chronic mucosal gastric inflammation which, through mechanisms that are not entirely clear, progresses to atrophic gastritis, followed by intestinal metaplasia, which will then differentiate into dysplasia. Dysplasia is classified into grade 1 (mild dysplasia, differentiation of 1/3 of the epithelium), grade 2 (moderate dysplasia, differentiation of 2/3 of the epithelium) and grade 3 (severe dysplasia or carcinoma in situ, differentiation of 3/3 of the epithelium). The terminal stage is the differentiation into gastric adenocarcinoma. The studies highlight that only a small group of patients with chronic atrophic gastritis have a higher risk of developing stomach cancer. The overall annual incidence is 0.1-0.25 %. **Conclusions:** Appropriate identification and surveillance of patients with advanced stages of atrophic gastritis and intestinal metaplasia ensures early diagnosis and reduces gastric cancer mortality.

Keywords: #CorreaCascade, #AtrophicGastritis, #PrecancerousCondition, #GastricCancer

THE PARTICULARITIES OF MYOCARDIAL INFARCTION IN YOUNG INDIVIDUALS

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Background: The etiopathogenesis of myocardial infarction (MI) in young individuals involves a multifactorial interplay of both genetic and behavioural causes, exerting a profound impact on cardiovascular health. The macromolecular complex of lipoprotein (a) [Lp(a)] plays a significant role in the pathogenesis and progression of atherosclerosis, and consequently, MI. **Objective:** The present study aims to investigate the particularities of MI in young individuals. **Material and methods:** According to the median value of the age, established at 45 years old, the study population was divided into two groups: group 1 - 41 patients ≤ 45 years and group 2 - 72 patients >45 years old. For all participants, smoker status, body mass index, comorbidities were assessed. Also, the C reactive protein level (CRP), uric acid, N- terminal natriuretic peptide (NT-proBNP) and Lp(a) seric level were determined. **Results :** In younger patients the Lp(a) seric level was significantly higher (0.38 ± 0.35 g/ L vs 0.13 ± 0.15 g/ L, p<0.0001), in contrast to patients over 45 years old who presented more frequent DM (diabetes mellitus) (p=0.008) and a higher BMI (body mass index) (25.75 ± 4.76 kg/ m2 vs 31.29 ± 6.64 kg/ m2, p=0.003). The CRP serum level (14.94 ± 2.32 mg/ L vs 43.75 ± 4.19 mg/ L), uric acid (4.68 ± 1.79 mg/ dl vs 6.27 ± 1.69 mg/ dl, p<0.0001)and NTproBNP level (897.90 ± 141.40 pg/ dl vs 2338.00 ± 349.10 pg/ dl, p=0.02) were higher in group 2 compared with group 1. **Conclusions:** In our study an association between Lp(a) and myocardial infarction at a young age was found, suggesting that cardiovascular risk could be seriously impacted by levels of Lp(a) in younger patients.

Keywords: myocardial infarction, lipoprotein (a), young individuals

CLINICAL AND MORPHOLOGICAL CORRELATIONS IN FACIAL ERYTHROSIS FROM ROSACEA: PRELIMINARY RESULTS FROM A TWO-STEP OBSERVATIONAL STUDY

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Background: Rosacea is a chronic centrofacial dermatosis, mainly affecting light-skinned patients, and characterized by persistent erythema alongside, depending on the clinical stage, telangiectasias, papules, and pustules. The evaluation of cutaneous parameters and the use of newer techniques such as skin ultrasound examination, though still not so widely employed, prove to be reliable for the management and follow-up of patients suffering from this condition. **Objective:** Our research aimed to analyze the clinical, biological, and morphofunctional aspects of facial erythrosis in patients suffering from rosacea and to highlight a possible link between them. **Material and methods:** We conducted a two-step observational study that included patients diagnosed with rosacea and admitted to the Dermatology Clinic of Mures Clinical County Hospital. Data referring to sociodemographic status, disease course, subtype, trigger factors, Helicobacter Pylori association, and treatment were extracted from patients' charts and statistically analyzed using Excel software. Ultrasound examination was performed for included patients to assess the following cutaneous parameters: erythema, melanin, hydration level, and skin elasticity. Continuous variables were analyzed with Student's t-test or Mann-Whitney U test, depending on their normality check. Categorical variables were assessed for intergroup significant differences with the Exact Chi-square test using the Monte Carlo method. The present data refer to patients examined in the winter season and set to return for a second analysis during spring. **Results :** 20 patients were enrolled in this study. 11 were females and 9 were males. 8 were from urban areas, and 12 were from rural ones. Patients' ages ranged from 28 to 65 years old. All 3 patients with erythematotelangiectatic subtype had bilateral facial lesions, emotional stress being the trigger at 2 of them and none had Helicobacter Pylori. The majority of patients (n=12) suffering from papulopustular subtype had bilateral facial and nose lesions and a median erythema value of 12. The 4 patients with the phymatous subtype had lesions affecting the whole facial area and most of them were males (n=3). The male patient with ocular subtype (n=1) has facial and ocular involvement, more than 10 years from the beginning of the disease and an 18,9 level of erythema. A correlation between the level of hydration and rosacea (p=0,049) was found. **Conclusions:** As rosacea progresses, skin ultrasound parameters modify underlying the subsequent pathophysiological mechanism. Further larger prospective studies are necessary.

Keywords: rosacea, erythema, ultrasound

THE PERCEPTION OF STIGMA REGARDING DEMENTIA AMONG YOUNG ADULTS

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Background: Dementia is a complex and debilitating condition that not only affects cognitive functions but also profoundly impacts social interactions and relationships. Despite growing awareness and advocacy efforts, individuals diagnosed with dementia continue to face significant stigma, leading to discrimination, social isolation, and barriers to accessing care and support services. **Objective:** This study seeks to evaluate how the general population perceives individuals with dementia by: gathering demographic information (gender, age, education, background), assessing understanding of terms such as "stigma", "dementia" and "discrimination", gauging empathy levels through specific questions, analysing data to uncover factors influencing patient stigmatisation. **Material and methods:** It is a cross-sectional study based on data collection. The data was collected via a 25-question Google Forms survey and it was analysed using IBM's SPSS software. The accuracy of the responses on "stigma", "dementia" and "discrimination" was compared with DEX definitions. The sampling method was used in this study. **Results :** In terms of age distribution the majority fall within the 20 to 30 age range. Gender distribution is roughly equal, with 56% female and 44% male participants. Regarding educational background, most have completed high school, and 71% come from urban areas compared to 21% from rural regions. The marital status shows that 74% are unmarried, 23% are married, 2% are divorced, and 1% are widowed. Prior to the study, only 59% of participants were acquainted with the concept of "stigma," with just 21% having a solid grasp of it. Conversely, 96% claimed familiarity with "dementia," but only 41% demonstrated a good understanding. Similarly,

96% were familiar with "discrimination," yet only 44% had a comprehensive understanding. While 39% reported no difficulty communicating with dementia patients, only 66% felt they truly understood and aided them. A notable 46% believed these individuals should be institutionalised, and 59% admitted feeling nervous around them. Only 34% felt comfortable sharing a home with dementia patients, while 40% were open to spending time with them. Concerning relationships, 48% doubted any negative impact from such a diagnosis, and 49% were willing to employ people with dementia for household assistance. **Conclusions:** Age extremes, urban, unmarried individuals with high school education tend to stigmatise psychiatric or dementia patients the most. Views on "dementia," "stigma," and "discrimination" vary very widely. Knowing someone with dementia reduces judgment of the condition. Trusting reliable medical sources leads to more openness toward entrusting tasks to dementia patients. Dementia patients' premorbid personality affects behaviour and likelihood of stigmatisation.

Keywords: Dementia, Stigma, Discrimination, Social

CORRELATION ASSESSMENT OF SCREENING TESTS AND COMORBIDITIES WITH CUSHING SYNDROME DIAGNOSIS

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Background: Cushing syndrome is a clinical condition caused by prolonged exposure to elevated cortisol levels. This can be due to ACTH-dependent or ACTH-independent causes, such as a pituitary or ectopic adenoma secreting ACTH or adrenal cortisol overproduction, respectively. Screening tests are the first line in the diagnosis of Cushing syndrome. Endogenous hypercortisolism is confirmed by at least two positive first-line tests. Cushing syndrome is often associated with multiple coexisting conditions, including cardiovascular and metabolic disorders. **Objective:** This study focuses on the assessment of screening tests and comorbidities in the diagnosis of Cushing syndrome. **Material and methods:** We examined data from patients suspected of Cushing syndrome and diagnosed with incidentalomas at the Endocrinology Clinic of Târgu Mureş between January and December 2022. This study involved patients who underwent screening tests for hypercortisolism, including an analysis of their comorbidities. Exclusion criteria were represented by the lack of data. Statistical analysis was performed with IBM SPSS Statistics 27, using the Kruskal-Wallis Test, cross-tabulation and Chi-Square Test. Significant if $p<0.05$. **Results :** This study included a total number of 72 patients, 11 males, and 61 females. The mean age at testing was 55 years, and the majority of patients were between 60-70 years (n=30) followed by an age group of 50-60 years (n=17). A total number of 239 tests were performed, with a median of 3 performed tests per patient (min 1, max of 5). 57.74% of the screening tests were positive. We investigated how screening tests such as late-night serum cortisol, late-night salivary cortisol, urinary free cortisol, overnight 1 mg dexamethasone suppression test and two-day low dose dexamethasone suppression test levels correlate with inconclusive diagnoses of Cushing syndrome, ACTH independent and ACTH dependent Cushing syndrome and incidentalomas. We found a strong, significant association between the overnight 1 mg dexamethasone suppression test and Cushing´s diagnosis ($p<0.05$). No statistically significant correlation ($p>0.05$) was found in the association of hypertension, diabetes mellitus, obesity, dyslipidemia, osteoporosis, menstrual irregularities, PCOS, hyperandrogenism, pituitary failure, psychiatric abnormalities, and the diagnosis of Cushing syndrome. **Conclusions:** Among the analyzed screening tests, the overnight 1 mg dexamethasone suppression test was the only one that evidenced a statistically significant relation with Cushing syndrome diagnosis. Therefore, compared to other first-line tests, it was shown to be the most reliable diagnostic method for the condition. No statistically significant association resulted between the studied comorbidities and diagnosis categories.

Keywords: Hypercortisolism, incidentaloma, dexamethasone suppression test, comorbidities

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COMPARATIVE ENDOSCOPIC ANALYSIS OF AUTOIMMUNE GASTRITIS AND HELICOBACTER PYLORI-ASSOCIATED GASTRITIS

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Background: Autoimmune gastritis (AIG) is a chronic pathology that involves the development of gastric parietal antibodies and destruction of the stomach lining leading to gastric atrophy. For many years, many studies have

focused on the complications of this pathology, such as pernicious anemia, ignoring the primary cause and delay diagnosis. **Objective:** This study aims to compare characteristics of autoimmune gastritis and Helicobacter pylori (HP) induce gastritis on the basis of gastroscopy in order to avoid delay in diagnosis and to institute appropriate early treatment. **Material and methods:** This study includes 150 patients divided into 3 groups: patients with autoimmune gastritis, patients with HP infection (confirmed based on histological and serological criteria) and the control group. Patients with incomplete data were excluded. Data were collected from medical reports. **Results :** Male patients are more common in the study group with HP (60%). In contrast, women are more frequent in the group of patients with AIG (64%) and the control group (56%). Endoscopically, in patients with HP gastritis, there was a statistically significant association with erythema at body level (p=0.004, OR:4.636, 95%CI:1.553-13. 840) and DII-level whitish deposits (p=0.003, OR:4.495, 95% CI:1.610-12.545). There was a significant trend of association between body submucosal hemorrhages (p=0.065, OR:3.438, 95% CI:0.872-13.563) and HP gastritis. In patients with autoimmune gastritis investigated by endoscopy, whitish deposits at DII level (p=0.003, OR:4.495, 95% CI:1.610-12. 545) were more frequent than in control patients but body erosions (p=0.041, OR:0.920, 95% CI:0.848-0.998) and bulbar erosions (p=0.014, OR:0.017, 95% CI:0.013-0.892) were significantly less frequent than in control patients. These findings suggest that recognizing gastric corpus erythema, submucosal hemorrhages, and whitish deposits in the DII of the duodenum during endoscopy could serve as valuable predictors for HP-induced gastritis, aiding in timely diagnosis and management. Conversely, fewer mucosal erosions may indicate autoimmune etiology, highlighting the importance of differentiating between these entities for appropriate therapeutic interventions and patient outcomes. **Conclusions:** The gastric corpus erythema and submucosal hemorrhages, as well as whitish deposits in the DII of the duodenum could be predictors for gastritis induced by HP infection. In studied population the absence of mucosal erosions is more frequent associated with AIG.

Keywords: Autoimmune gastritis, Helicobacter pylori, Gastroscopy

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FLARES IN RHEUMATIC DISEASES AFTER VACCINATION – SYSTEMATIC REVIEW AND PROPORTIONAL META-ANALYSIS

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Background: Vaccination is essential for preventive care in rheumatic patients, aiming to decrease the risk of severe infections. But the relationship between vaccination and rheumatic diseases is complex due to both having autoimmune and inflammatory mechanisms. A significant concern is the exacerbation of rheumatic disease or "Flare" following immunization. **Objective:** We aimed to analyze studies reporting on flares occurring postvaccination, pooling the patients and quantifying the rate of flares in a larger group of patients with different rheumatic diseases and various vaccinations. **Material and methods:** We conducted a systematic literature search of PubMed, Scopus, PLOS ONE and Clinicaltrials.gov on the 16th of December of 2023. Every rheumatic disease and vaccination were included. Studies were screened using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta Analyses) method. Data were extracted into a spreadsheet for calculation. A proportional meta-analysis was performed using both a random and fixed-effects model, and the pooled flare rate was calculated. Heterogeneity was measured using the I2 statistic. **Results :** After screening 77 studies were included, of which 48 studies analyzed flares after COVID-19 vaccination, while the other 29 reported on various vaccines such as influenza and childhood vaccines. Combining all study populations 33322 patients were analyzed. The total flare rate with a fixed-effects model was **9.2%** [95% CI 8.9-9.5] and with a random-effects model **7.9%** [95% CI 6.0-10.0]. Heterogeneity, measured by I2, was **97.47%** [95% CI 97.17-97.73]. **Conclusions:** This proportional meta-analysis concluded that almost **8%** of patients with rheumatic diseases experienced a disease flare after vaccination. This value was calculated through a random-effects model. Significant heterogeneity was found, indicating a high variation between the studies, necessitating a careful interpretation. Further research is essential for finding underlying risk factors for disease flares and to optimize vaccination strategies in rheumatic diseases.

Keywords: Rheumatic diseases, Flares, Vaccination, Proportional meta-analysis

EXPLORING THE SEROPREVALENCE LANDSCAPE OF TORCH INFECTIONS WITHIN THE PEDIATRIC POPULATION OF CLUJ COUNTY, A COHORT STUDY

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Background: TORCH syndrome is a medical abbreviation describing a group of five or more congenital diseases, most of which are viral. It consists of the Taxoplasma gondii parasite, and other agents: Treponema pallidum, Varicella-zoster, Parvovirus B19, Rubella, Cytomegalovirus, and Herpes simplex virus. TORCH syndrome refers to fetal or neonatal infection caused by one of the above-mentioned etiological agents. Congenital forms entail a heightened risk of fetal malformations (especially in the first trimester of pregnancy) and severe infections are often associated with spontaneous abortion. Because many infected patients are asymptomatic, serological diagnosis is critical for prevention. The current research is a cohort-based, randomized, retrospective, and longitudinal type of study. **Objective:** Understanding the TORCH seroprevalence in pediatric populations is crucial for assessing the prevalence of congenital infections, guiding prenatal care, and implementing preventive measures. This study aids in identifying at-risk individuals, and ultimately safeguarding the health and well-being of children and pregnant women in the community. **Material and methods:** The Immunological Chemiluminescence method was the test used for the research. The test detects the presence and measures the quantity of specific antibodies. Essentially, the test detects the body's immune response to infection. The study period consisted of 9 months (January-September 2019), of a statistically significant group. The age range for inclusion was from 3 months to 18 years old. Exclusion standards: individuals with compromised immune systems. The data was provided by the Pediatric Clinic II Cluj-Napoca's Immunology Laboratory and was approved by the Ethics Committee of the "Iuliu Haţieganu" University of Medicine and Pharmacy Cluj-Napoca, Romania. **Results :** It was shown that 103 tests (12.8%) were positive for Toxoplasma gondii, 1551 positive tests (75.7%) for CMV, 174 positive tests (51.6%) for HSV-1/2, 12 patients (14-18) - HSV type 2. The prevalence study concluded that the rate of presence of specific antibodies was higher among patients infected with CMV compared to the positive batches of other infections. Toxoplasma - CMV coinfection was detected in 44 of 103 patients diagnosed with Toxoplasmosis. (42.7%). The seroprevalence of TORCH infections was statistically significant (Fisher test, $p<0.001$) among the pediatric population aged 12-18 years (average age=9.87). **Conclusions:** The current study indicates that the prevalence of specific antibodies increases in direct correlation with age. High seroprevalence predicts TORCH risk, affecting pregnant women and newborns. By knowing the epidemiology of TORCH infections, we can develop viable strategies to prevent congenital infections and their long-term consequences.

Keywords: TORCH, epidemiology, pediatrics, prevalence

DOES THE NEUTROPHIL-TO-LYMPHOCYTE RATIO (NLR) AND PLATELET-TO-LYMPHOCYTE RATIO (PLR) PLAY A KEY ROLE IN DETERMINING THE LENGTH OF HOSPITALIZATION IN DECOMPENSATED CHRONIC HEART FAILURE?

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Background: Heart failure (HF) is a complex clinical syndrome characterized by the heart's inability to pump blood sufficiently to meet the body's needs. A wide range of inflammatory biomarkers are involved in myocardial tissue damage mediated by various oxidative stress cytokines across the entire range of HF phenotypes. Among various biomarkers, the neutrophil-to-lymphocyte ratio (NLR) and the platelet-to-lymphocyte ratio (PLR) have emerged as a simple, cost-effective and predictive biomarker in HF. NLR and PLR are calculated by dividing the number of neutrophils by the number of lymphocytes and the number of platelets to lymphocytes, typically obtained from a standard complete blood count, respectively. **Objective:** This study aimed to assess if there is a correlation between the biomarkers and the length of hospitalization in decompensated chronic HF (CHF) patients. **Material and methods:** Primary sample data included retrospective data from 1965 admissions during 2022-2023 in the Department of Internal Medicine II-Cardiology, County Emergency Clinical Hospital Targu Mures, Romania. The enrolled patients were divided into three main groups according to the 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure classification: heart failure with reduced ejection fraction (HFrEF), heart

failure with mildly reduced ejection fraction (HFmrEF), heart failure with preserved ejection fraction (HFpEF). Inclusion criteria were: primary heart failure diagnostic according to ICD-10 codes (E50.0,E50.1,E50.9), age>18 years old, in-hospital admission length >48 hours and approved signed consent. Exclusion criteria were: lack of approved consent and data, infectious state (viral, bacterial, fungal) at admission or first 48 hours, sepsis, cancer, autoimmune diseases, liver disorders, leukemia, myelodysplastic syndrome dialysis. **Results :** After applying initial inclusion and exclusion criteria, the sample was reduced to 323 analyzed admissions. Mortality during admission was 11 deaths (3.4%). The mean age of the entire sample was 67.90±11.41 (IQR:14) while 181 (56.03%) patients were males. In the whole group, the median NT-proBNP level was 1978 pg/mL (IQR: 5481). A mild positive correlation has been found between NLR (Neutrophil-to-Lymphocyte Ratio) and admission length ($r=0.21$, $p<0.001$) without a significant difference between the three subgroups. At the same time, NT-proBNP values were correlated with both admission length ($r=0.45$, $p<0.001$) and NLR ($r=0.38$, $p<0.001$). Overall admission length was seven days (IQR:5) for all three subgroups without any significant difference. **Conclusions:** The studied parameters correlate with the length of hospitalization in decompensated CHF. Therefore, we suggest that inflammation might play a key role in worsening the prognosis for patients with CHF.

Keywords: decompensated chronic heart failure, neutrophil-to-lymphocyte ratio, platelet-to-lymphocyte ratio, admission length

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GUT MICROBIOTA AND IST IMPORTANCE IN INFLAMATORY BOWEL DISEASE (IBD) PATIENTS: A REVIEW

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Background: The human microbiota is composed of 10-100 trillion microorganisms such as viruses, protozoa, fungi and mainly bacteria. The characteristics this microbiota are crucial in the development of IBD and several studies endorse that there are big differences between the microbiota in IBD patients and one in the healthy individuals. The number and diversity of bacteria in the gastrointestinal tract is directly related to the activity of the disease. **Objective:** The aim of the study is to summarize the differences between a healthy and a pathologic microbiota, as well as overview the different treatments to restore the normal microbiota. **Material and methods:** A review-type study of the literature about IBD and its relation with the gut microbiota. We evaluate the different IBD entities, its relation with the microbial predominance and its possible treatments. **Results :** The studies show that in patients with IBD, Proteobacterias (particularly adherent invasive E. coli), Pasteurellaceae and Ruminococcus gnavus are increased, while Clostridium groups IV and XIVa, Bacteroides, Bifidobacterium species and F prausnitzii are decreased. The latter plays an essential role in the pathogenesis of the disease. Low levels of F prausnitzii have been observed in Crohn´s disease (CD) patients and are directly related to an increased recurrence of ileal disease after surgery. Furthermore, they are a predictive factor of CD relapse in patients in remission. Short-chain fatty acids (SCFAs) play also an important role in intestinal homeostasis. Therefore, probiotics supplementation with butyrate and propionate-producing bacteria can be used for treating IBD. Other treatment is represented by faecal microbiota transplantation (FMT). Its principle is the change of the patient´s microbiota composition by the administration of a solution of fecal matter from a donor into the intestinal tract. FMT is specially used in recurrent Clostridium difficile infections. For moderate CDI, FMT is indicated if there is no response to standard therapy for at least 1 week. For severe CDI, it is indicated when there is no treatment response after appropriate maximal therapy for 48 h. Exclusive enteral nutrition (EEN) is a useful treatment in paediatric patients with CD. This therapy is as effective as corticotherapy inducing remission, and lacks their potential adverse effects. **Conclusions:** The identification of the microbiota helps to decide the adjuvant therapy for our patients, never leaving aside the main therapy following the European guidelines. The main focus is to reduce the levels of harmful microorganisms and to promote the growth of those beneficial microbes, especially those with anti-inflammatory effects.

Keywords: IBD, Microbiota, faecal microbiota transplantation (FMT), Exclusive enteral nutrition (EEN)

SUN EXPOSURE BEHAVIORS AND SKIN IMAGING: EXPLORING THE LINK

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Background: Prolonged and unprotected sun exposure induces various changes in the skin. These range from hyperpigmentation due to increased melanin production, collagen, and elastin fibers degradation leading to decreased elasticity and wrinkling, and increased erythema due to keratinocytic DNA damage and secondary inflammation. **Objective:** This study aims to analyze the cutaneous changes resulting from the action of sunlight on both sun-exposed and non-exposed skin using cutaneous ultrasound and to correlate them with patients' sun exposure behavior. **Material and methods:** This study is a cross-sectional, descriptive analysis conducted strictly between September and December 2023 as such to minimize the influence of direct sunlight exposure on cutaneous parameters. The study consisted of three parts: a specially designed sun exposure behavior questionnaire completed by the patients, clinical, dermatoscopic, and ultrasound examinations conducted by a dermatologist using a Heine DeltaOne dermoscope and DermLab Skin Combo ultrasound machine. Statistical analysis utilized Mann-Whitney U, Kruskal-Wallis, and Wilcoxon tests for quantitative data, and the Chi-square test for qualitative data, with a significance level set at $\alpha=0.05$. **Results :** In this study, 35 patients were included, with a median age of 47 years, and an equal gender distribution: 51.4% male and 48.6% female, predominantly from urban areas (62.9%). Four patients were previously diagnosed with basal cell carcinoma, while another four patients had a history of squamous cell carcinoma. Sun exposure and patients' reactions to it were also evaluated. Thirty-three patients had a history of sunburn, with a predominant healing time of 2 weeks (n=24). Most patients (n=19) had prolonged sun exposure (more than 10 times a year, n=15) for recreational purposes. Among the entire cohort, only 48.6% confirmed sunscreen use. Significantly higher values of hydration and skin elasticity were observed in unexposed skin compared to sun-exposed skin ($p<0.001$). Conversely, significantly higher values of erythema and melanin levels were observed in sun-exposed skin ($p<0.001$). **Conclusions:** In summary, our study underscores the detrimental effects of sunlight on skin health, showing decreased hydration and elasticity alongside increased erythema and melanin levels in sun-exposed skin. These findings emphasize the crucial role of sun protection measures in preventing cutaneous damage.

Keywords: sunlight, cutaneous parameters, sunburn, skin elasticity

UNDERSTANDING HBV INFECTION DYNAMICS: LINKING VIRAL MARKERS TO PATIENT VIREMIA

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Background: The clinical outcome of chronic hepatitis B virus (HBV) infection is determined by the viral replication cycle and the host immune response. The viral markers used to identify HBV are used in the diagnosis of hepatitis to determine infectivity and to monitor patients. **Objective:** The aim of the study is to determine the prevalence of HBV infection in Mures County Hospital and to correlate the presence of viral markers, HBsAg and HBeAg, with patient viremia. **Material and methods:** Patients' viral markers were determined from serum in medical laboratory using the Architect i1000 automated analyzer by chemiluminescence method. Viral DNA was extracted and purified from patients' blood sera, using GeneProof PathogenFree DNA Isolation Kit, according to the producer's instructions. The detection of HBV DNA (conservative DNA sequence of P gene) was performed using GeneProof HBV PCR Kit. The sample concentration (IU/ul) was calculated based on the Ct value provided by the qPCR analyzer (Applied Biosystems Quantstudio 5), being plotted against the calibration curve created with the internal standards. The virus concentration in IU/ml was finally calculated considering the processed sample volume (200 ul) and the elution volume (50 ul). **Results :** A total of 1697 HBsAg tests were performed between February 2023 and December 2023, resulting in 11.13% (n=189) positive tests, patients with average age of 48 years (SD= 14.83), predominantly men 52.38% (n=99). Only 105 of the HBsAg positive patients were also tested for HBeAg of which 13.33% (n = 14) were positive. By comparing the two methods, using the Fisher statistical test, we obtained a p-value=0.027 (CI=95%), relative risk of 1.76 and Odds Ratio=10.15 with a significant association between the PCR method and the presence of HBsAg. On the other hand, in the case of HBeAg, which is usually associated with viral replication, comparing the results obtained with the RT-PCR assay, a p-value=0.25, considered

insignificant, with no correlation between viral load and the presence of HBeAg. **Conclusions:** Determining of the viral load is crucial in the diagnosis of hepatitis B infection. While assessment of HBeAg did not show a statistically significant association with viral load, this does not diminish the importance of determination from blood. Viral load is indicator for measuring the severity of infection, assessing the effectiveness of treatment and predicting disease progression.. Therefore, integration of viral load measurement into clinical practice remains essential for the management of hepatitis B patients.

Keywords: study, viremia, replication, diagnosis

BEYOND NUMBERS: INTERPRETING LAB VALUES IN ICU-MANAGED COPD EXACERBATIONS

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Background: Since COPD is a chronic disease, most of the patients learn over time, with regular appointments at their pulmonologist, how to manage their condition and properly administer their medication. Yet, various elements, like infections or environmental factors can trigger this condition and cause exacerbations, some being life-threatening enough to require ICU(intensive care unit) admissions. Certain lab values, presence of a bacteriological suprainfection or the ventilation mode should be thoroughly analyzed to determine the proper management and the survival rate of these patients. **Objective:** The objective of this study was to determine if there was a certain correlation between the number of the white blood cells count, the bacteriological agent involved in the suprainfection, the ventilation mode and the survival rate in ICU-managed COPD exacerbations. **Material and methods:** We conducted a retrospective study for the period 01/01/2022-30/10/2023. The data was collected from the informatic system used in the Pulmonology Department at the Mures Clinical County Hospital, Targu Mures, Romania. We included all the patients with COPD exacerbations (84 patients) that required transfer from the Pulmonology Department to the ICU in the mentioned time frame. We excluded the patients presenting a secondary diagnosis of the Sars-COV2 virus. **Results :** While white blood cell count is a non-specific lab value for COPD patients, a high value can tell that there might be a bacteriological suprainfection in our patient. The mean value of this parameter was 12950mm3, ranging from 5300 to 27800mm3. The highest values were statistically proven to occur in patients that presented Escherichia coli in their bacteriological exam. Regarding the ventilation mode, there was a significantly higher prevalence of oro-tracheal intubation for the patients that had Acinetobacter baumanii(100%), Staphylococcus aureus(100%) and Streptococcus pneumoniae(80%). On the other side, negative cultures were found in patients that only needed a facial mask(38,2%). Regarding the survival rate, patients presenting Acinetobacter baumanii (39,2%) had the highest death rate, while patients with Staphylococcus aureus had the lowest one(2%). **Conclusions:** While most of the exacerbations could be managed in the Pulmonology Department by adjusting the medication doses and symptomatic treatment, some of them require ICU-admissions. For those, it is important to quickly intervene and analyse some key lab values in order to determine the management and course of the treatment, since ventilation plays a key role and death occurs more often in patients presenting certain bacteriological agents.

Keywords: COPD, exacerbations, bacteriological, suprainfection

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COMPREHENSIVE ANALYSIS OF GASTROESOPHAGEAL REFLUX DISEASE AND BARRETT'S ESOPHAGUS

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Background: Gastroesophageal reflux disease and Barrett's esophagus are two strictly connected medical conditions. GERD is a chronic disorder characterized by the reflux of the gastric content back into the esophagus, causing heartburn and acid regurgitation. Sustained exposure of the esophagus to the gastric acid can lead to erosion of the mucosa, promoting the substitution of the esophageal epithelium with the metaplastic epithelium of BE. **Objective:** The goal of this study is to provide a comprehensive understanding about the complex interaction between GERD and BE, by assessing the different prevalence trends. **Material and methods:** We performed a retrospective observational study, including 51 patients diagnosed with GERD and BE from the database of the Gastroenterology department of the Spitatul Clinic Judeţean of Târgu Mureş, from 2018 to 2024. For each patient

we evaluated demographic parameters (age, sex, background), risk factors, symptoms, complications, comorbidities, classifications and treatment strategies. **Results :** The mean age of the patients was 62,80 years old, with the majority of the patients in between 60 and 79 years old (n=28). There was a majority of male patients (n=30, 58,8%) and patients who live in rural areas (n=29, 56,8%). Regarding the risk factors: 45% of the patients were smoker, 37,2% were obese, 33,3% of the patients recalled occasional alcohol consumption while 11,7% daily consumption and 35,3% were diagnosed with hiatal hernia. Esophageal symptoms were reported by 98% of the patients, the most common being: heartburn (92,16%), acid regurgitation (88,24%), gastric discomfort (39,22%), hypersalivation (36%), chest pain (21,57%), nausea (15,7%), vomiting (13,73%) and eructation (13,73%). Considering the macroscopical classification of BE, our study reported 78,43% with short-segment BE and 21,57% with long-segment BE, while microscopically 94,12% showed no dysplasia, 3,92% low-grade dysplasia and 1,96% high-grade dysplasia. Complications were detected in 30 patients (58,8%): all of them developed Esophagitis, 3 had also esophageal strictures and 2 esophageal ulcers. Among the patients evaluated 94,12% (n=58) had associated gastrointestinal comorbidities, 50,98% (n=26) cardiac comorbidities, 47,06% (n=24) hepatic comorbidities, 33,3% (n=17) renal comorbidities, 33,3% (n=17) hyperlipidemia, 19,61% (n=10) respiratory comorbidities and 17,65% (n=9) diabetes. Therapeutic strategies included: lifestyle modifications, dietary adjustment, as well as medical therapy: PPI (92,16%), H2 receptor antagonist (7,84%) and antacids. **Conclusions:** Our study demonstrated how the increasing age has a major role in the development of GERD and BE. Heartburn and acid regurgitation were found in the vast majority of the patients, while PPIs are clearly the gold standard for treatment.

Keywords: GERD, Barrett's esophagus, Heartburn, Acid regurgitation

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TREATMENT-RELATED CONTROVERSIES IN CHILD'S ACUTE BRONCHIOLITIS

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Background: Acute bronchiolitis is the most common lower respiratory tract infection in children under two years of age, having a significant impact in this age group. Generally, it is a mild, self-limiting disease only requiring supportive treatment, but can occasionally be problematic, leading to respiratory failure. The use of corticosteroids in the treatment of bronchiolitis remains a controversial topic, and although few studies captured the potential beneficial effects of their integration into therapy, multiple updated guidelines support the lack of benefit of using these drugs. **Objective:** The objective of the study was to observe the differences between patients who received corticosteroid therapy for the treatment of bronchiolitis and those who did not, particularly regarding their symptoms and laboratory findings. **Material and methods:** We conducted a retrospective, observational study in which we analysed the medical records of 220 paediatric patients from the Paediatrics I department of the Clinical County Emergency Hospital of Târgu Mureș, Romania. They were divided into two groups according to the administration of corticosteroids, excluding the patients with incomplete clinical and paraclinical data. Data collection was performed by analysing medical records from 2018-2022 and selecting relevant information. **Results :** In our study, a predominance of male patients (62%), from rural areas (68%) was observed. Corticosteroids were more frequently administered in patients presenting crackles (55.9%), dyspnoea (55.19%), nasal flaring (71.43%), accessory muscle use (61.12%), wheezing (76.32%), intercostal retractions (64.57%). Moreover, physicians tended to avoid corticosteroids in younger patients, aged between 0-4 months (56.36%) as opposed to patients above the age of 5 months (69.09%). Common administration of corticotherapy was detected in patients with previous admissions ($p=0.0005$), predisposing lung disease ($p<0.0001$), simultaneous treatment with antibiotics or Ventolin aerosols ($p=0.0259$) as well as those with lower oxygen saturations ($p=0.0021$), lower mean corpuscular haemoglobin concentration ($p=0.0003$), lower lymphocyte count ($p=0.0137$), higher neutrophil count ($p=0.0007$). Prolonged aerosol therapy and hospital stay were found among those with corticotherapy, compared to those without ($p=0.001$). **Conclusions:** The study suggests that patients with more severe clinical forms of bronchiolitis, who exhibit symptoms of respiratory failure, may benefit from corticosteroid use. Additionally, the study found that patients with predisposing pulmonary diseases tended to receive corticosteroid therapy more frequently. However, it was also found that protecting patients under 4 months of age from corticosteroid use could reduce the risk of adverse effects.

Keywords: Bronchiolitis, Corticotherapy, Paediatrics

HOW DO WE EFFECTIVELY LOWER LDL-CHOLESTEROL IN HIGH-RISK PATIENTS?

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Background: In patients who underwent percutaneous coronary intervention for acute coronary syndrome (ACS) the low-density lipoprotein (LDL) cholesterol target is below 55 mg/dL. Reaching this target is almost impossible to achieve with high-dose statin treatment in monotherapy. **Objective:** The purpose of the present study is to evaluate lipid-lowering therapy thus comparing statin monotherapy from statin with ezetimibe therapy in patients following an ACS. **Material and methods:** The study includes 60 consecutive patients admitted to the Cardiology Department of the Emergency Clinical County Hospital Târgu Mureș with ACS. Patients were randomly assigned to one of the two treatment groups: Group 1 - high-dose statin and Group 2 - high-dose statin + ezetimibe 10 mg. For all patients, the lipid profile was assessed upon admission and after one month of treatment. **Results :** The mean age of patients in Group 1 was 61.10 ± 11.22 years while in Group 2 it was 61.73 ± 14.22 years (p= 0.84). Upon admission, all patients had an LDL-cholesterol above the target value of 55 mg/dL and there was no significant difference in lipids at baseline between the two groups (all p > 0.05). After one month of lipid-lowering treatment, the patients in Group 2 (40.71 ± 15.90 mg/dL) presented a significantly lower value of LDL-cholesterol compared to the patients in Group 1 (70.89 ± 20.16 mg/dL) with p= 0.002. The high-dose statin + ezetimibe had a significantly higher reduction effect on LDL-cholesterol in one month of treatment compared to high-dose statin monotherapy (-69.40% versus -40.54%; p= 0.006). **Conclusions:** The current study's findings show that high-dose statin + ezetimibe is more effective in lowering LDL cholesterol and reaching targets faster in high-risk patients than high-dose statin monotherapy. This opens a new paradigm in secondary prevention and consequently it shows a significant decrease in the risk of a recurrent major cardiovascular event.

Keywords: acute coronary syndrome, ezetimibe, low-density lipoprotein, statin

SUICIDE TENDENCY AFTER THE COVID 19 PANDEMIC: AN INCREASING ISSUE IN MURES COUNTY

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Background: It's already been four years since the first COVID 19 lockdown, since then, two years have already passed from the lifting of all restrictions in Romania and worldwide, but have all the problems that came with the pandemic disappeared? From 2019 the focus was put on the physical consequences that came along with the disease, starting from the new unstudied illness, its physiopathology, finding and rapidly delivering the cure. Recently, the effects produced by all the imposed restrictions were correlated with mental state deterioration. **Objective:** The aim of this study is to examine the suicidal tendencies and an eventual increase of suicidal rate in Mures County in the post COVID-19 era, compared to previous years and other Romanian counties. **Material and methods:** We analyzed a series of articles from PuBMeD, Google Scholar, Research Gate and WorldBank Data published within the pre-pandemic period and between 2021 and 2024 as well as data from internal sources including figures published in the Romanian Journal of Statistics. **Results :** Many people were affected by the results of the pandemic, resulting in an increase of suicidal rates by 18% when compared to the years before the arise of the Coronavirus infection. **Conclusions:** We can conclude that the pandemic had a massive impact on society especially on the population's mental health, that resulted in an 18% increase of suicidal rate in Mureș County (n to 100.000) compared to other Romanian counties.

Keywords: Suicide, Pandemic, Covid 19, Mures County

PEDIATRIC ACUTE RESPIRATORY FAILURE: CLINICAL CHARACTERISTICS AND MANAGEMENT STRATEGIES

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Background: Acute respiratory failure refers to a condition in which the respiratory system is unable to adequately supply oxygen to the body to effectively remove carbon dioxide, leading to impaired gas exchange and potentially life-threatening complications. This condition can result from various factors such as respiratory infections, lung diseases, neuromuscular disorders, or trauma, and it can present with symptoms such as increased respiratory effort, tachypnea, cyanosis and altered mental status. **Objective:** The purpose of this study is to assess the correspondence in between the clinical presentations and the paraclinical findings in pediatric patients experiencing acute respiratory failure. **Material and methods:** For this study, a retrospective study was conducted including 160 patients admitted to Pediatric Clinic I Targu-Mures diagnosed with acute respiratory failure during the period 01.01.2023 to 01.01.2024. The patients were between 28 days and 18 years old. The following data was extracted from each patient's medical record: sex, age, clinical manifestations, laboratory results, diagnosis, and treatment. **Results :** 70% of the cases presented SpO2 under 92% at admission. The most frequently encountered clinical symptom was dyspnea (39%), followed by coughing (31%) and fever (30%). The most frequent pathological element observed during the physical examination was paleness (56%), followed by tachypnea (53%), intercostal retraction and tachycardia (50%), decreased vesicular murmur (45%), perioral and perinasal cyanosis (42%), suprasternal retraction (37%), crepitant rales (33%) and harsh vesicular murmur (30%). Statistical analysis revealed indicators of correspondence between certain variables, demonstrating a statistically significant correlation in between children with asthma and pericarditis (r= , p<0,001), chest X-ray with diffuse opacities and Acinetobacter etiological agent (r= , p<0,01) as well as VSR etiological agent and sibilant rales (r= , p<0,001). **Conclusions:** Most pediatric patients with respiratory failure tend to present SpO2 values below 92%. Common clinical symptoms include dyspnea and cough, associated with paleness and tachypnea. The statistical correlations suggest potential relationships between specific etiological agents and clinical manifestations, which can aid in diagnosis and treatment planning.

Keywords: pediatric patients, dyspnea, acute respiratory failure

HEIGHT, WEIGHT, AND WHEREABOUTS: FACTORS SHAPING PEDIATRIC ENDOCRINOLOGY REFERRALS

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Background: Referral for a pediatric endocrinology consult in a child is influenced by socio-demographic factors, parental ones, primary care level of knowledge and the community, among others. The main reasons for pediatric endocrinology evaluation are concerns about height, weight or puberty. **Objective:** The aim of the current study was to analyze the relationship between reasons for referral of a child to pediatric endocrinology and parental and sociodemographic factors. **Material and methods:** This was a secondary data analysis on a non-randomized sample of children presenting for consultation in a tertiary endocrine center in Romania in 2022. The first 100 children were included and families were contacted for consent and further information. 2 subjects were excluded from the final sample due to missing information. Data was collected regarding parental factors - level of education, income, housing, environment, height and body mass index (BMI), auxological parameters - height SDS, BMI SDS, pubertal status, and reason for referral. For data collection MO Excel was used and for statistical analysis SPSS v 25 with a level of significance α=0.05. **Results :** Fifty-one boys (52%) and 47 girls (48%) were included, 65.3% from urban areas. The main reason for referral was short stature (44.9%, n=44), followed by overweight/obesity (28.6%, n=28) and 26.5%, n=26 presented for other reasons. Housing conditions, urban environment and parental height SDS were associated with the reason for referral, with children from rural areas presenting mainly for height concerns, while the urban environment is associated with obesity referrals (p=0.022) and living in an apartment is associated with concerns over weight (p<0.001) as reason for referral. Children with short stature had shorter parents, with a low positive correlation between parents' height SDS (r=0.255, p=0.011). Parental level of education and child's gender had no influence the referral diagnosis. **Conclusions:** Socio-

demographic factors have more influence compared with parental factors on pediatric endocrinology referrals.

Keywords: short stature, obesity, referral, parental factors

A CROSS-SECTIONAL STUDY OF THE HORMONAL PROFILE AND COMPLICATIONS OF SUBCLINICAL AND CYCLIC CUSHING SYNDROME.

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Background: The prevalence of endogenous Cushing syndrome (CS) is estimated to be between 39-79 cases/million and may be attributed to either autonomous cortisol production by the adrenal gland or excess pituitary or ectopic ACTH secretion. Despite classic endogenous CS being a rare disease, the subclinical and cyclic subtypes are thought to be more widespread due to being clinically less recognizable. Although it is widely known that classic CS is associated with cardiovascular, musculoskeletal, metabolic, and neuropsychiatric complications, less studies detail the prevalence of these comorbidities in subclinical/cyclic CS. **Objective:** We aimed to establish the presence of hormonal and metabolic complications in patients diagnosed with subclinical or cyclic CS and furthermore study correlations between these and the associated hypercortisolemia. **Material and methods:** The records of patients diagnosed with either subclinical or cyclic CS hospitalized in the Endocrinology Department of the County Clinical Hospital Târgu Mureș between 01/2014-12/2023 were analyzed. Patients with exogenous glucocorticoid use (local/systemic) or diagnosed with PCOS were excluded, reducing confounding errors. Their laboratory findings and accompanying comorbidities/diagnoses were recorded, and statistical tests were performed. **Results :** Of 86 eligible patients, 71 had subclinical and 15 had cyclic CS. The majority (76% and 73% respectively) of patients were female. The median age was 64 for females and 54 for males. There was a statistically significant association between males with hypercholesterolemia and subclinical CS (p=0,049). The Pearson coefficient (r) indicated a weak positive correlation (WPC) between serum triglycerides and late-night serum cortisol (LNSC) (r=0,287), moderate positive correlation (MPC) between LDL-cholesterol and urinary free cortisol (UFC) (r=0,348), MPC between erythrocyte count and UFC (r=0,315), WPC between fasting glucose and LNSC (r=0,264), and WPC between leukocyte count and LNSC (r=0,220). Hypertension was frequent in cyclic (80%) and subclinical (81,7%) CS. Diabetes was present in 33,33% of cyclic and 43,67% of subclinical CS patients. 25-OH-vitamin D deficiency was detected in 50% of cyclic and 63,89% of subclinical CS patients. Osteoporosis was present in 13,33% and 28,17% of patients with cyclic and subclinical CS, respectively. **Conclusions:** Due to the altered serum parameters and frequent complications of hypercortisolemia seen in subclinical and cyclic CS, it may be worthwhile for clinicians to suspect hypercortisolemia more often before treating comorbidities directly. Screening for CS may lead to identification and treatment of the underlying cause, ultimately facilitating an improved quality of life.

Keywords: Cushing syndrome, Subclinical, Cyclic, Intermittent

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ELEVATED LEUKOCYTE GLUCOSE INDEX IS ASSOCIATED WITH SEVERITY, ICU ADMISSION AND IN-HOSPITAL MORTALITY IN ONCOLOGICAL COVID-19 PATIENTS

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Background: COVID-19 is an acute respiratory infection caused by the SARS-CoV-2 virus. This infection induces a high inflammatory response, primarily affecting the respiratory system and often causing Acute Respiratory Distress Syndrome. Moreover, this infection is associated with a multitude of extrapulmonary manifestations such as hypertension, gastroenteritis, thrombotic events and neurological manifestations. Given the multi-systemic damage caused by the SARS-CoV-2 infection, it can present an increased severity in the case of immunosuppressed patients with tumor pathology associated. **Objective:** The aim of this study is to analyze the link between the accentuated inflammatory status (expressed by NLR, SIRI, LGI - Neutrophil to Lymphocyte Ratio, Systemic Inflammation Response Index, Leukocyte Glucose Index respectively) and the outcome of oncological patients infected by the new coronavirus. **Material and methods:** This is a retrospective observational study which included a total of 51 COVID-19 tested positive patients admitted to the Infectious Diseases Clinic 1 of Targu

Mures, during the years of 2021 and 2022, with oncological history associated. They were divided into two groups, 41 survivors and 10 non-survivors. **Results :** In terms of demographic data, there was no statistical difference between the two analyzed groups. At the same time, higher values of LGI were recorded in the case of deceased patients, an aspect that was also maintained in the case of the two groups - transferred to the Intensive Care Unit (ICU) and those who did not need transfer. Moreover, the ROC analysis identified an optimal cut-off value of 0.96 (sensitivity 90% and specificity 82.1%) with an area under the curve (AUC) of 0.849 compared to mortality, respectively 0.816 compared to transfers in ICU (sensitivity 81.8%, specificity 81.6%, cut-off 0.969). To determine the predictive role of LGI according to the two endpoints, a logistic regression was performed, where three models were proposed: an unadjusted model, respectively two models adjusted for age and sex (model 2) and additionally, for the severity of the disease (model 3). **Conclusions:** An elevated level of LGI is directly associated with the need for transfer in ICU and mortality, independent of age, sex and disease severity, in patients with SARS-CoV-2 infection and cancer.

Keywords: COVID-19, CANCER, LGI, SYSTEMIC INFLAMMATORY BIOMARKERS

THE SUICIDE GENE-REALITY OR MYTH?

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Background: Suicide is a problem that affects nations worldwide, and Romania's population is no exeption. With a total of 19.7 million occupants in which 53.26% are self declared Romanians, 39.30% Hungarians and 7.44% Roma ethnics, the Finno-Ugrian suicide Hypothesis araises, making itself known due to the high suicide rates in conties with mostly hungarian ethnics residents such as Covasna, Harghita and Mures. The Finno-Ugrian suicide Hypothesis questions the genetic ties between Finno-Ugrian population and their high suicide rate. **Objective:** The objective of this this study is to show the correlation that is theorised to exist between the geographic patterns of suicide rates in romanian counties with a higher population of ethnics hungarians. **Material and methods:** After analyzing multiple articles and statistics published on PubMeD, Google Scholar and BioMedCentral, we based our focus on the counties Covasna, Harghita and Mures due to their high hungarian ethnics population and their suicide rates. **Results :** Harghita County has the highest percentage of ethnic Hungarians with 84.62%, with a suicide rate of 36.36, Covasna County is second with 73.80% and a suicide rate of 36.00, and Mures County is the third with 39.30% and a suicide rate of 24.66. We compared these numbers to other counties with a much lower Hungarian ethnics population such as Caras-Severin County with a 1.75% Hungarian ethnics population and a 6.55 suicide rate or Sibiu County with 3.64% and a suicide rate of 11.82. After studing the available data, we can clearly see an increase in the suicide rates that is directly proportional to the percentage of ethnic Hungarians. **Conclusions:** Based on the information gathered during our research, we can confirm that the Finno-Ugrian suicide Hypothesis, although still insufficiently studied, should be taken into consideration by romanian physicians during their consults and pay special attention regarding their mental health, considering them being genetically prone to suicidal ideations, self-inducted injuries, suicide.

Keywords: Finno-Ugrian suicide Hypothisis, suicide gene, Hungarian ethnics

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THE IMPACT OF BIOLOGICS ON THE QUALITY OF LIFE FOR PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: Ankylosing spondylitis (AS) is a chronic inflammatory disease that primarily affects the axial skeleton, leading to pain, stiffness, and reduced mobility. Therefore, AS can have a significant impact on the QoL of affected individuals. Biological therapy is a type of treatment that uses genetically engineered proteins or antibodies to target specific molecules or cells involved in the immune response. In the case of Ankylosing Spondylitis (AS), biological therapy is used to target cytokines, which are proteins that play a key role in the inflammatory process that causes the disease. **Objective:** This study objective is to create a concise collective presentation of multiple past studies performed by different researchers about the effectivity of biologics in the treatment of adult patients with ankylosing spondylitis (AS). **Material and methods:** Using 3 past studies that

analyzed the data of 1000+ cases of AS patients treated with different kinds of DMARDs across the world. Hence, the relevant data according to the aim of the study were collected. The study is a network meta-analysis of the efficacy of biologics in the treatment of adult patients with AS. **Results :** Study 1 demonstrated sustained efficacy and an acceptable safety profile of upadacitinib in bDMARD-IR patients with AS over a 1-year period, supporting its potential as a treatment option for this patient population. Study 2 the study highlighted the potential of IL-17 A/F dual variable domain inhibitor (bimekizumab) as a promising future treatment option for AS, while TNF-α inhibitors, particularly infliximab, were identified as effective first-line therapies for patients with active AS. Study 3 found that all three IL-17 inhibitors (SEC, IXE, and NTK) showed comparable clinical efficacy in terms of response rates to treatment (ASAS 20/40 and BASDAI 50). However, NTK showed the best combination of price and clinical efficacy among the IL-17 inhibitors registered in the Russian Federation, both after 16 weeks and after one year of therapy. **Conclusions:** DMARDs/biologics play a crucial role in improving the quality of life of patients with ankylosing spondylitis. The use of biologics has been associated with reduced pain, improved physical function, and enhanced overall well-being. However, it is important to note that biological therapy is not suitable for all patients with AS, and the decision to use this treatment should be made on a case-by-case basis. This meta-analysis supports existing research and literature, providing further evidence of the positive impact of biologics on quality of life within the AS patient population.

Keywords: Ankylosing spondylitis, disease-modifying antirheumatic drugs (DMARDs), quality of life (QoL), biologics

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EVALUATING THE CREDIBILITY, COMPLETENESS, AND ACCURACY OF GERMAN-LANGUAGE ONLINE RESOURCES ON HEPATOCELLULAR CARCINOMA: A CROSS-SECTIONAL STUDY

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Background: Hepatocellular carcinoma (HCC) is a prevalent form of liver cancer, contributing significantly to global cancer-related mortality. As individuals increasingly turn to online resources for health information, the accuracy and credibility of online content become critical for early diagnosis and informed decision-making. **Objective:** This study aimed to assess the credibility, completeness, and accuracy of German-language online information on hepatocellular carcinoma. Additionally, it explored potential correlations between website credibility, Google ranking, and the completeness and accuracy of information provided. **Material and methods:** A cross-sectional study was conducted, analyzing 25 German websites selected based on predefined criteria. Website credibility was evaluated using established quality measures, while completeness and accuracy were assessed using a specialized benchmark developed with expert input. Two independent evaluators analyzed and rated the medical content on these websites. Scores for credibility, completeness, and accuracy were assigned on a scale from 0 to 10. Statistical analyses included Pearson's and/or Spearman tests for correlations, with significance set at 0.05. **Results :** The mean credibility, completeness, and accuracy scores for German websites were 5.4, 4.8, and 6.3, respectively. Correlation analyses revealed a significant positive moderate correlation between credibility and completeness (rho=0.4752, p=0.0164), as well as a significant positive low correlation between credibility and accuracy (rho=0.3822, p=0.0594). However, no significant correlations were found between Google ranking and completeness (r=-0.016, p=0.9393) or accuracy (r=0.0623, p=0.767). **Conclusions:** German-language online information on hepatocellular carcinoma demonstrated moderate credibility, completeness, and accuracy. While there is a moderate/weak positive correlation between credibility and the completeness/accuracy of information, Google ranking did not appear to influence the quality of information provided. Efforts to enhance the reliability and completeness of online health information are necessary not only to support informed decision-making and enable early detection of HCC but also to ensure that patients have access to accurate sources for informed understanding and decision-making regarding their health.

Keywords: liver cancer, consumer health informatics, medical misinformation, infodemiology

EVALUATING THE EFFICACY OF ESOPHAGEAL VARICES THERAPY IN ALCOHOLIC HEPATIC CIRRHOSIS: EXPERIENCE FROM A TERTIARY GASTROENTEROLOGY CENTER

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Background: Alcoholic liver cirrhosis, caused by prolonged ethanol consumption, leads to irreversible liver damage characterized by fibrosis. Esophageal varices are severe complications of liver cirrhosis due to increased portal venous pressure. The treatment aims to prevent complications like variceal hemorrhages and includes endoscopic procedures, sclerotherapy, beta-blockers, or surgery for severe cases. **Objective:** The aim of this study is to investigate and evaluate current methods to managing oesophageal varices in alcoholic liver cirrhosis, in order to identify the most effective therapeutic strategies. **Material and methods:** We conducted a retrospective observational study that included 358 patients admitted to the Gastroenterology Clinic I of the Emergency County Clinical Hospital in Târgu Mureș. The study included patients with confirmed alcoholic liver cirrhosis and bleeding or non-bleeding esophageal varices. Patient selection was conducted over a 3-year period, starting on January 1, 2021 and ending on December 31, 2023. **Results :** This study found a significant number of male patients (73,5%), mostly from rural areas (52,8%). We observed a strong correlation between pacients with ascites and Child-Pugh score (p=0.00), most of them having a grade C Child-Pugh score (45,8%). Analyzing the mortality to which the patients are subjected, following the classification of the MELD score, it appears that most sufferers in the analyzed group (41,6%) have this score below 10 points, meaning a low mortality rate. Following upper gastro-intestinal endoscopy, it reveals that most of the esophageal varices inspected were first-degree (40,2%) and without bleeding (60,2%) and only a small fraction of all esophageal varices were ligated during endoscopy (26,3%). Following this investigation, a correlation was observed between the sex of the patients and the endoscopic treatment of bleeding esophageal varices, with males predominating with ligated varices (p=0.00). An analysis of the non-invasive treatment that these patients received, shows that most patients were treated with non-selective beta-blockers (83%), such as Carvedilol or Propranolol, but fewer received Vasopressin (57%). **Conclusions:** : Analysis of the study by gender and background it is indicating a potential demographic prevalence of the analyzed condition, with males being more likely to undergo ligation. Patients with severe Child-Pugh scores are at higher risk of ascites, but this does not necessarily correlate with higher mortality based on MELD score data. Upper gastro-intestinal endoscopy revealed a relatively stable condition in the majority of cases. Additionally, a minority of varices were treated with endoscopic ligation following the procedure. Pharmacological interventions were preferred over invasive procedures in the study.

Keywords: Esophageal varices, Alcohol Cirrhosis, Beta-blockers

THE ROLE OF COPEPTIN IN CHRONIC KIDNEY DISEASE – A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Numerous studies have looked into the function of the biomarker copeptin (CPP), which has shown promise in the diagnosis and severity assessment of chronic kidney disease (CKD). However, the results continue to be contradictory and inconclusive. **Objective:** Our goal was to investigate the connection between CPP and CKD patients, with a focus on their diagnostic utility and association with the severity of CKD based on the Kidney Disease Improving Global Outcomes (KDIGO) classification. **Material and methods:** We conducted a systematic search on PubMed, EMBASE, and Scopus using a predefined search. Included studies diagnosed through eGFR (estimated glomerular filtration rate), or measured GFR, and evaluated severity based on the KDIGO CKD Classification. Studies met predefined inclusion and exclusion criteria, with quality assessed using the Newcastle Ottawa Scale (NOS). The main outcomes were the mean difference (MD) in serum CPP according to the KDIGO CKD classification. **Results :** A total of 7 articles involving 2,769 subjects fulfilled our inclusion criteria and were included in our systematic review and meta-analysis. Significant differences in CPP levels were observed across multiple comparisons. When comparing CKD patients to controls, CPP levels showed a substantial MD of 12.975 (95% CI 6.572, 19.379). Similarly, CPP levels exhibited significant MDs when comparing controls vs. CKD 1-2/ 2 (-1.600, [95% CI -3.179, -0.020]), controls vs. CKD 3 (-9.598 [95% CI -12.959, -6.237]), controls vs. CKD 4-5 (-

28.776 [95% CI -42.925, -14.628]), and CKD 1-2 vs. CKD 4-5 (-30.475 [95% CI -46.790, -14.160]). **Conclusions:** In conclusion, our systematic review and meta-analysis highlights pronounced differences in CPP levels across multiple comparisons in CKD. When comparing CKD patients with controls, a significant elevation in CPP levels is evident, indicative of potential implications in renal pathology. Moreover, the observed variations in CPP levels between different CKD stages underscore its potential utility as a biomarker for disease severity and progression. These findings contribute to our understanding of CPP dynamics in CKD and suggest avenues for further research into its diagnostic and prognostic significance in clinical practice.

Keywords: Biomarker, Chronic Kidney Disease, Copeptin, Glomerular Filtration Rate

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A SYSTEMATIC REVIEW AND META-ANALYSIS ON THE ROLE OF ADRENOMEDULLIN AND ITS PRECURSORS IN ASSESSING AND PREDICTING HEART FAILURE

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Background: This research delves into the diagnostic potential of adrenomedullin (ADM), pro-adrenomedullin (Pro-ADM), and mid-regional-pro-ADM (MR-Pro-ADM) as biomarkers for heart failure (HF). **Objective:** It aims to elucidate their correlation with HF diagnosis and severity according to the New York Heart Association (NYHA) classification, addressing the existing conflicting results in previous studies. **Material and methods:** We conducted a systematic search on PubMed, EMBASE, and Scopus using a predefined search. Included studies diagnosed HF through blood work, echocardiography, or cardiac catheterization, and evaluated severity based on the NYHA Classification. Studies met predefined inclusion and exclusion criteria, with quality assessed using the Newcastle Ottawa Scale (NOS). The main outcomes were the mean difference (MD) in serum ADM, Pro-ADM, and MR-Pro-ADM levels, along with the area under the curve (AUC) for MR-Pro-ADM in predicting HF. **Results :** A total of 28 articles, involving 15,405 subjects meeting inclusion criteria were included in our systematic review and meta-analysis. Significant differences in ADM levels were observed in various comparisons, such as HF patients vs. controls (MD 6.024, 95% CI 1.691, 10.356), NYHA I vs. controls (-1.202, 95% CI -2.111, -0.292), NYHA IV vs. controls (-7.536, 95% CI -12.680, -2.393), and NYHA I-II vs. NYHA III-IV (-2.351, 95% CI -4.361, -0.341) for ADM levels. Furthermore, significant differences in Pro-ADM levels were identified in various comparisons, including NYHA I-II vs. controls (-0.960, 95% CI -1.479, -0.440), and NYHA I-II vs. NYHA III-IV (-0.966, 95% CI -1.407, -0.526). MR-Pro-ADM levels significantly differed between NYHA I-II and NYHA III-IV, with an MD of -0.428 (95% CI -0.492, -0.365). Regarding MR-Pro-ADM's predictive ability for HF, our analysis revealed an AUC of 0.781 (95% CI 0.755, 0.806). **Conclusions:** HF patients had significantly higher ADM levels than controls, and higher levels were associated with advanced NYHA classes. Comparing NYHA class III-IV HF patients to those in class I-II HF patients, both Pro-ADM and MR-Pro-ADM demonstrated higher concentrations; however, MR-Pro-ADM had less predictive power for HF when compared to recognized biomarkers.

Keywords: Heart Failure, Adrenomedullin, Pro-Adrenomedullin, Mid-Pro-Adrenomedullin

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ASSESSING DISEASE BURDEN: QUALITY OF LIFE IN PSORIASIS AND AUTOIMMUNE BULLOUS DISEASES

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Background: Psoriasis and autoimmune bullous diseases (BD) are chronic, recurrent, immune-mediated pathologies, characterized by skin eruptions and associated symptoms: itching, pain, burning and stinging. Their influence on patients' quality of life (QoL) can be significant, affecting both physical and emotional well-being, and leaving an impact on daily activities and social relationships. **Objective:** This study aims to evaluate the QoL in individuals with psoriasis and BD (pemphigus, bullous pemphigoid and dermatitis herpetiformis). **Material and methods:** A cross-sectional, descriptive study was conducted on 50 patients admitted to the Dermatovenerology Clinic of the Mureș Clinical County Hospital, between July 2023 and February 2024, and diagnosed with psoriasis (34 patients) and BD (16 patients, with the predominance of pemphigus). Data were collected using two questionnaires: one included information about the patient, skin lesions, symptoms and treatment; the other was the Dermatology Life Quality Index (DLQI) questionnaire, where a higher score indicates a greater impact on the individual's QoL. The statistical analysis included Pearson and Spearman's correlation, t-tests and the Mann-

Whitney test, with a significance level of p<0.05. **Results :** Psoriasis and BD had a moderate effect on patients' QoL, with an average DLQI value of 7.61 ± 6.04 for psoriasis and 8.81 ± 4.38 for BD. The most impacted aspects of QoL were clinical symptoms and feelings, while work and school were the least influenced. Statistically significant differences were observed in the DLQI values between patients receiving local and systemic treatment (3.9 ± 3.3 for psoriasis and 5.62 ± 1.92 for BD) and those without any treatment (8.91 ± 5.35, p=0.01 for psoriasis, 12.83 ± 3.43, p=0.0003 for BD). Regarding psoriasis, combined local and systemic treatment showed a lower DLQI value (3.9 ± 3.3) compared to local treatment alone (11.33 ± 7.39, p=0.01); in addition, a positive correlation was found between DLQI and disease extent (r=0.56, p=0.0005). No other significant correlations were identified for either psoriasis or BD. **Conclusions:** Psoriasis and BD moderately impair individuals' QoL. Patients receiving both local and systemic therapies experienced a better QoL compared to those without any treatment. Specifically, for psoriasis, combined local and systemic therapies demonstrated superiority in promoting a better QoL compared to local treatment alone. These findings emphasize the importance of therapeutic medical intervention for both conditions, together with adequate psychological and social support.

Keywords: quality of life, Dermatology Life Quality Index, psoriasis, bullous diseases

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EARLY PRESENTATION OF EBSTEIN`S ANOMALY: HEMODYNAMIC PARTICULARITIES AND MANAGEMENT

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Background: Ebstein`s anomaly (EA) is a rare congenital cardiac malformation characterized by apical displacement of the tricuspid valve (TRv) and reduced volume of the true functional right ventricle (RV). Despite its low rate of occurrence, neonatal presentation of EA represents the most severe clinical form of this condition, associated with high mortality. The pathophysiology and clinical presentation vary depending on the anatomical severity of the disorder. Symptomatic neonates with EA presented with cyanosis and severe congestive cardiac failure. **Objective:** The identification of risk factors for hemodynamic instability is extremely important in therapeutic management. These factors include lack of effective antegrade pulmonary flow in anatomic or functional pulmonary atresia, severe TRv regurgitation creating a large right-to-left shunt through an atrial septal defect, RV dysfunction, inadequate left ventricle filling owing to ventricular septal bowing, arrhythmias, and the extrinsic compression of lungs by the space-occupying mass of the dilated right heart. In the neonate, these factors are amplified by the elevated pulmonary resistances (PVR). **Material and methods:** The classic radiographic appearance of EA is massive "wall-to-wall" cardiomegaly. The echocardiography is the most useful in the diagnosis of EA providing sufficient anatomic and hemodynamic information: the degree of apical displacement of the septal leaflet, the degree of atrialization of the RV, size of TRv annulus, severity of TRv regurgitation. It may be difficult to differentiate physiological from anatomical pulmonary atresia. Following a confirmation of diagnosis by echocardiography, the clinical evolution should be monitored closely. **Results :** Most neonates born with EA do not require surgical intervention. Neonates who are reasonably stable are treated with supplemental oxygen, Prostaglandin E1 as require, and closely observed for adequate cardiac output. The immediate therapy of unstable patients may involve intubation, deep sedation, inotropic support, inhaled nitric oxide to reduce PVR, and Prostaglandin E1 if deemed ductal-dependent. Many neonates tend to stabilize and improve over a few days as PVR decreased. Neonates who continue to decline despite standard resuscitative measures need surgical intervention. Surgical options depend on the hemodynamical anatomical features and ranging from a complete biventricular repair to single-ventricle palliation. **Conclusions:** Symptomatic neonates with EA represent the most severe form of the disease and can be effectively managed with good outcomes. Echocardiography is generally the key test for diagnosis. The choice of management pathway based on anatomy and physiology can help reduce morbidity and mortality.

Keywords: Ebstein`s anomaly, neonate, hemodynamic particularities

EVALUATION OF THE IMPACT OF NUTRITIONAL STATUS ON THE EVOLUTION OF PATIENTS WITH ACUTE MYOCARDIAL INFARCTION - FOLLOW-UP STUDY

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Background: The influence of overall nutritional status on cardiovascular risk factors is widely recognized and malnutrition affects the prognosis of cardiovascular disease. Acute myocardial infarction (AMI) has been a major cause of death around the world. **Objective:** Thus, we investigated the impact of malnutrition as defined by Controlling Nutritional Status (CONUT) on non-fatal myocardial infarction, non-fatal stroke, cardiovascular death, 3-point major adverse cardiovascular events (3P-MACE) in AMI patients. **Material and methods:** 86 consecutive patients with AMI receiving primary revascularisation were included in the study, but, unfortunately, 3 patients were lost to follow-up (3.4%). For the rest 83 patients, we assessed baseline characteristics and composite endpoints (non-fatal stroke, non-fatal myocardial infarction, cardiovascular death and 3P-MACE) during the follow-up period of 36 months. **Results :** Patients were divided into a well-nourished group (CONUT score 0-2, n = 67) and moderate-to-severe nutritional deficit group (CONUT score ≥ 3, n = 16). Patients with altered nutritional status presented more frequent major cardiovascular events: 21.25% vs. 8.95% (p=0.03) for non-fatal myocardial infarction, 18.75% vs. 5.97% (p=0.12) for non-fatal stroke, 31.25% vs. 7.46% (p=0.02) for cardiovascular death and 62.50% vs. 19.40% (p=0.001) for 3P-MACE. **Conclusions:** The assessment of CONUT during the convalescence period is a useful risk predictor for patients with AMI and may have a potential for predicting major cardiovascular events. Nutritional guidance may improve the prognosis of patients with poor nutritional status.

Keywords: CONUT, nutritional status, malnutrition, MACE

RAPID DIAGNOSIS AND MANAGEMENT OF ACUTE SURGICAL ABDOMEN PRESENTING WITH NEUROLOGICAL SYMPTOMS: A CASE REPORT

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Background: Acute surgical abdomen poses a diagnostic challenge, especially when neurological symptoms precede abdominal manifestations. Timely recognition and management are critical for optimizing patient outcomes. **Objective:** This study emphasizes the importance of rapid and accurate differential diagnosis, appropriate laboratory investigations, and swift intervention in patients with neurological symptoms, ultimately leading to the diagnosis of acute surgical abdomen. **Material and methods:** We present the case of a 21 years old patient who presented to the Emergency Department with altered mental status, abdominal discomfort, diarrhoea and subsequent right-sided lower limb motor and sensory deficit, starting 3 days prior to presentation. At presentation BP was 65/30 mmHg, HR 130 bpm, SpO2 86% in room air, Capilary Refill Time 5 seconds, pale, sweaty skin, generalized skin marbling and altered mental status. Initial management consisted of fluid resuscitation, high-flow O2 via face-mask, vasopressor support, broad spectrum empiric antibiotherapy and supportive treatment. Despite the initial consideration of a neurological cause and a negative cerebral CT scan, after a thorough physical examination, a native abdominal CT scan was performed, revealing gangrenous appendicitis with necrosis and ischemia in the right iliac fossa, marked muscular and perimuscular air infiltration of the iliopsoas muscle and cecal necrosis, while an abdominal contrast enhanced CT scan identified a retroperitoneal abcess and compression of the right external iliac artery. Blood work revealed severe leukopenia, neutropenia, severe metabolic acidosis, and hypoglycemia, while inflammatory tests and sepsis markers were elevated. The final diagnosis was toxic shock, acute surgical abdomen through perforated appendicitis, retroperitoneal abscess, compartment syndrome of the right thigh, and severe metabolic acidosis. The multidisciplinary team of emergency physicians and surgeons decided to transport the patient for emergency surgery. The patient's intraoperative and postoperative outcomes were dismal, and she died two days later. **Results :** Prompt and thorough examination is crucial for patients with neurological symptoms of an acute surgical abdomen to obtain positive outcomes. To provide effective patient management, a multidisciplinary team must make meticulous decisions, as well as extensive perioperative preparation, due to the case's complexity. Furthermore, the interval between symptom start and presentation at the emergency room is critical to the patient's

outcome. **Conclusions:** In emergency setting, the initial symptoms can mislead the emergency physician, physical examination being of great importance. Despite the fact that rapid evaluation, management, investigation and appropriate laboratory tests facilitated the diagnosis, the severity of the disease lead to unfavorable outcome for the patient.

Keywords: acute surgical abdomen, neurological symptoms, rapid diagnosis, toxic shock

HEMORRHAGE IN GASTRODUODENAL LESIONS

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Background: Some of the most common challenges in medical world are the management of pain, inflammation, as well as various cardiovascular diseases. This is the reason why anti-inflammatory, antiplatelet and anticoagulant drugs are widely used. Concomitantly with the beneficial effects, these drugs increase the risk of non-variceal upper gastrointestinal bleeding, as they may cause ulceration of the upper gastrointestinal mucosa directly or may cause more abundant bleeding or rebleeding. **Objective:** The aim of this paper was to investigate outcomes of acute upper gastrointestinal bleeding and to examine the role of drugs potentially associated with hemorrhagic event. **Material and methods:** This retrospective study, includes a total of 214 patients admitted to the Gastroenterology Department of the Mureș Clinical Country Hospital , between January 2021 and December 2022,with main manifestations of hematemesis and/or melena and endoscopic diagnosis of gastroduodenal lesion (ulcer, erosion).The batch was divided into 6 groups according to the consumption of drugs. We analyzed clinical parameters, comorbid diseases, the need for blood transfusion and duration of hospitalization. Rockall and Blatchford prognostic scoring systems were used to assess the risk of rebleeding and death. **Results :** Regarding the history of drug consumption, the patients were assigned to an unexposed group consisting of 115 subjects (54 %)(group 1) and an exposed group represented by 99 patients (46%).Of the 99 patients, 14.5% on anticoagulant, whether it is vitamin K antagonists or direct oral anticoagulants (group 2), 10.3% on aspirin only (group 3), 4.2% on dual antiplatelet therapy (group 4), 5.1% on combined antiplatelet-anticoagulant therapy (group 5) and 19.2% consume non-steroidal/steroidal anti-inflammatory drugs (group 5).A prior history of upper gastrointestinal bleeding prevails in the exposed group (p=0.018).Pharmacotherapy potentially associated with upper gastrointestinal bleeding, especially anticoagulant treatment (p=0.017) proved to be an independent predictor for clinically significant bleeding, defined by the presence of clinical signs of hemorrhagic shock, or the need for transfusion (OR=1.908,p=0.017).Among patients on anticoagulant monotherapy and combined antiplatelet-anticoagulant, the Blatchford score was higher than in the other groups (p=0,029).Also, the Rockall score in group 2 was higher than in the unexposed group (p=0.012).The transfusion requirement was higher in exposed group(p=0,018),especially in group 2 (p=0.037).We noticed a higher length of hospitalization among patients on anticoagulant treatment than the unexposed group (p=0.044). **Conclusions:** Anticoagulants proved to be an independent predictor for a major bleeding event, increasing the need for blood transfusion, the duration of hospitalization, the risk of rebleeding and death.

Keywords: ulcer, erosion, drugs, bleeding

ATHEROGENIC INDEX OF PLASMA IN METABOLIC SYNDROME - A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Numerous studies have investigated the role of the biomarker atherogenic index of plasma (AIP), which has shown promise in the diagnosis of metabolic syndrome (MetS). However, the results continue to be contradictory and inconclusive. **Objective:** our goal was to investigate the relationship between AIP in MetS patients, as well as its predictive accuracy. **Material and methods:** We systematically searched PubMed, EMBASE, and Scopus using a predefined string to identify relevant studies. Included studies diagnosed MetS based on the International Diabetes Federation. The main outcome was the mean difference (MD) of AIP between MetS versus healthy controls and the area under the curve (AUC) in predicting MetS. **Results :** A total of 15 articles involving 17,837 subjects fulfilled our inclusion criteria and were included in our systematic review and meta-analysis. When comparing MetS patients to controls, AIP levels showed a significantly elevated MD of 0.238

(95% CI -0.918, 1.698). When comparing type 2 diabetes mellitus (T2DM) with MetS patients to normoglycemic patients with MetS, AIP levels showed a non-significant MD of 0.109 (95% CI -0.045, 0.264). Regarding AIP's predictive accuracy in MetS, our analysis showed an AUC of 0.864 (95% CI 0.856, 0.871). **Conclusions:** In conclusion, our systematic review and meta-analysis highlights a significant increase in AIP levels in MetS patients compared to healthy controls. Nevertheless, AIP levels were not significantly different in T2DM with MetS patients compared to normoglycemic MetS patients. The accuracy of AIP to predict MetS is acceptable. These findings contribute to our understanding of AIP dynamics in MetS and suggest avenues for further research into its diagnostic and prognostic significance in clinical practice.

Keywords: Atherogenic index of Plasma, Biomarkers, Diabetes Mellitus, Metabolic Syndrome

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THE LINK BETWEEN CLINICAL, HEMATOLOGICAL PARAMETERS AND THE STAGE OF CELIAC DISEASE

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Background: Celiac disease is a chronic autoimmune disorder that primarily targets the small intestine, triggered by gluten consumption. The golden standard in its diagnosis involves a combination of serological tests, a duodenal biopsy following the MARSH criteria of disease classification, and genetic testing. Currently, there is no cure for celiac disease, the only way of managing being the adoption of a gluten-free diet. **Objective:** This study aims to compare clinical and hematological parameters with the MARSH stages of celiac disease, providing insight into diagnostic markers and their correlation with disease severity. In conducting this study, we strive to achieve an easier detection of the disease, as it is often overlooked in patients with asymptomatic or atypical presentations. **Material and methods:** We conducted a retrospective study on 55 patients diagnosed with celiac disease, that were in the care of the Gastroenterology department of the Emergency Clinical County Hospital of Targu Mures, Romania. The data was collected over a period of 5 years (2018-2023) from the endoscopy registries, which highlighted the patients diagnosed with celiac disease, and we correlated the findings with the results of the attached pathology reports of the duodenal biopsies. The paraclinical laboratory investigations have been extracted from the computerized hospital database. **Results :** Our study shows that celiac disease is more prevalent in younger females, with a distribution of 43 females and 12 males, with a mean age of 46.5 years. Significant findings include a prevalence of microcytic anemia above 50% in MARSH stages 2, 3B, and 3C, thrombocytosis peaking at 66.67% in stage 3B, hypoalbuminemia highest at 36.71% in stage 3C, hypocalcemia reaching 33.33% in stage 3A, and elevated INR levels most notable at 66.67% in stage 3B. **Conclusions:** Early indications suggest that microcytic anemia, iron deficiency, thrombocytosis, hypoalbuminemia, hypocalcemia and elevated INR are frequently encountered in celiac disease, especially in its more advanced stages. This could potentially lead to improved diagnostic protocols and targeted management strategies for patients. We conclude that undiagnosed patients presenting with the studied hematological and nutritional abnormalities should undergo a duodenal biopsy, with the purpose of raising the detection rate of celiac disease.

Keywords: Celiac disease, Hematological parameters, MARSH staging, Disease progression

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SEVERE CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) IS FREQUENTLY ASSOCIATED WITH COMORBIDITIES SUCH AS CARDIOVASCULAR DISEASES, METABOLIC DISORDERS, AND BRONCHOPULMONARY CANCER (BASED ON THE EXPERIENCE OF THE PULMONOLOGY CLINIC IN TARGU MURES)

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Background: Chronic obstructive pulmonary disease (COPD) presents comorbidities related to common etiopathogenic factors (smoking, aging, obesity): cardiovascular impairment, bronchopulmonary cancer (BPC), obstructive sleep apnea (OSA). Others are either complications or comorbidities exacerbated by severe incompletely controlled COPD (through systemic inflammation and hypoxemia): chronic cor pulmonale, diabetes mellitus (DM), osteoporosis, polycythemia, decreased muscle mass, increased risk of BPC, sedentarism, obesity and dyslipidemia. **Objective:** The main objective was to analyze the prevalence of different comorbidities and their relationship with COPD. **Material and methods:** We analyzed the risk factors, comorbidities, and their

interrelationship with the underlying disease in 90 patients with advanced stage COPD, Grade E, admitted to the Pulmonology Clinic in 2022-2023. **Results :** Patients with advanced COPD were admitted for exacerbated symptoms: respiratory failure, hemoptysis, sleep disorders, or comorbidities worsening. Laborious clinical/paraclinical investigations were performed: arterial blood gas analysis, pulse oximetry, cardiac examination (EKG, ultrasound), bronchoscopy, thoracic CT (for suspected lung cancer), sleep study (for suspected sleep apnea), walking tests, targeted biochemical/bacteriological explorations. COPD was more common in men (68-75.6%) than women (22-24.4%), more frequent in the age group of 61-80 years (56-62.2%), but also in the active socio-professional group (<60 years) (26-28.9%). Smoking was a major risk factor for COPD and cardiovascular comorbidities, cancer, or sleep apnea. Smoking was more common in men (50-73.5%) than in women (11-50%) and significantly higher than in the national general population (31.3%). Obesity (37-41.1%) conferred increased risk for cardiovascular diseases and sleep apnea. Comorbidities were very common: cardiovascular (76-84.4%), with arterial hypertension (68-75.6%), ischemic heart disease (36-40%), DM (23-25.6%), and lung cancer (13-14.4%), OSA (15-16.7%), dyslipidemia (6-6.7%). A number of 27-30% had between three and five comorbidities, and 60-66.7% had more than five. Sleep apnea was a contributing factor to the development of symptoms (poor sleep quality), cardiac complications, and respiratory failure. A number of 10-11.1% patients were admitted to the ICU. Fatality rate was high at 5.6%. Treatment was complex, including combinations between dual bronchodilation inhalers and inhaled corticosteroids, antibiotics, mucolytics, systemic corticosteroids, oxygen therapy, treatment of comorbidities, and non-invasive ventilation in cases of respiratory failure with hypercapnia. **Conclusions:** In advanced COPD, comorbidities are frequent and severe (directly related to the severity of the disease, advanced age, smoking, and the presence of obesity). Cardiovascular, metabolic comorbidities, sleep apnea, and lung cancer will be actively sought in patients with COPD for their complex treatment and the reduction of contributory risk. Their diagnosis and management require laborious investigations and a multidisciplinary approach.

Keywords: chronic obstructive pulmonary disease, management, comorbidities

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CARDIAC AND RENAL DYSFUNCTION AMONG HYPERTENSIVE PATIENTS ADMITTED TO AN INTERNAL MEDICINE CLINIC

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Background: Heart failure is a clinical syndrome caused by a structural or functional anomaly of the heart, leading to increased intracardiac pressures and/or Inadequate delivery of blood by the heart, at rest and/or during exercise. Renal dysfunction is a frequently observed condition among individuals with heart failure, linked to an increased risk of mortality, particularly in those undergoing prolonged dialysis treatment. Hypertension significantly influences the deterioration of both renal and cardiovascular health outcomes, while declining renal function exacerbates hypertension. **Objective:** To study the presence of heart failure with reduced, mildly reduced, and preserved ejection fraction, and the presence of renal dysfunction in hypertensive patients admitted to our internal medicine clinic. **Material and methods:** We studied all hypertensive patients admitted to our internal medicine clinic between 2022-2023 with the diagnosis of heart failure. 425 patiens were selected, 55.1% female, average age: female 75.1+9.1 years, male 70.8+11.6 years. We analyzed the presence of different forms of heart failure according to the ejection fraction determined by echocardiography. Renal function was evaluated according to estimated glomerular filtration rate (eGFR) - in patients with several values during hospitalization, the last value was considered. We compared the eGFR of patients with different forms of heart failure. Statistical analysis was performed using the IBM SPSS statistics program. As our data was not normally distributed according to the Shapiro-Wilks test we used nonparametric Mann Whitney U test for testing differences. The level of significance was set at p value under 0.05. **Results :** Heart failure with reduced ejection fraction (HFrEF) was present in 37.2%, heart failure with mildly reduced ejection fraction (HfmrEF) was present in 23.1% of patients, and heart failure with preserved ejection fraction (HfpEF) was present in 39.7% of patients. According to New York Heart Association clinical stages patients were in stage I 0.2%, stage II 26.1%, stage III 61.9%, stage IV 11.8%. According to stages of renal disease patients were classified to the following stages: stage 1- 32.5%, stage 2- 29.2%, stage 3-31.5%, stage 4-6.1%, stage 5-0.7%. Patients with HFpEF had significantly higher eGFR values than patients with HFmrEF (77.8 versus 68.1p=0.03). Patients with NYHA class III had significantly lower eGFR values than patients with NYHA class II (71.2 versus 82.9, p=0.003) **Conclusions:** Different grades of renal dysfunction is common among hypertensive patients with heart failure admitted to an internal medicine clinic. More severe reduction of eGFR is present in patients with NYHA class III and in patients with HFmrEF.

Keywords: Heart failure, Renal dysfunction, Hypertension

FOLLOW-UP OF CLINICAL, BIOLOGICAL, AND ENDOSCOPIC RESPONSE IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE UNDERGOING BIOLOGICAL THERAPY

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Background: Inflammatory bowel disease (IBD) is considered a real challenge for gastroenterology specialists, both due to the etiological factors not yet elucidated, as well as in terms of clinical evolution and therapeutic management. The origin of the disease involves an extensive physio-pathological process, idiopathic, with chronic progression, in which the immunity of the intestinal mucosa is inadequately activated. IBD sums up two major pathologies, namely Crohn's disease and ulcerative colitis. **Objective:** Through this study, we want to evaluate the response of patients diagnosed with inflammatory bowel disease to the action of biological therapy. Once the treatment with biological agents begins, both the endoscopic evidence regarding the healing of the intestinal mucosa and the remission of the clinical symptoms occur over several weeks, months, during which the patients were carefully monitored, and the results obtained were thoroughly recorded through the patient's files. Some patients showed an adequate reaction to the administration of the biologics, while others continued to show a remission-exacerbation course of disease at intermittent time intervals. With this, we want to elucidate the lack of obtaining remission after the therapy with the first biological agent and at the same time, the clinical course of the patients with the start of an alternative biological therapy. **Material and methods:** We performed a retrospective study on fifty-five patients and we used as research materials the patients files with clinical data provided by SCJ Târgu Mureș, on which we applied different formulas of statistical analysis to emphasize the correlations between the undergone therapies and the results obtained. **Results :** The use of immunomodulators and biological therapy reveals a strongly significant p value considering the appearance of complications. We obtained a statistically significant p value between immunomodulators, antibiotic therapy and gender.The urban medium and female gender show a significant correlation to development of IBD. We observed a statistically significant p value between complications and the risk for electrolytes disorders, especially in serum changes of Na+, K+ and creatinine. We applied Spearman correlations, where we found out that the level of Hb and the serum albumin decreases as the days of hospitalization increase. **Conclusions:** As we can see from this study, the clinical evolution of IBD patients is highly individualized, and the absence of remission has multifactorial causes. According to our research, some patients show adequate remission at the initiation of therapy with one or at most two biological agents, while other patients show an unpredictable disease course, which requires complex therapeutical management.

Keywords: Biologicals, Colitis, Inflammation, Crohn's

PEDIATRIC ALLERGIC ASTHMA – THE PREVALENCE AND CHALLENGES OF ASSOCIATED COMORBID DISORDERS

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Background: Allergic asthma in children can often be associated with various comorbidities. Some recurrent comorbidities seen in children with allergic asthma may include :allergic rhinitis,atopic dermatitis,and food allergies as the most common situations.Recognition and management of these conditions could give a better control of asthma in children.One of the most frequent non-transmissible disease worldwide , asthma is often associated with comorbidities either pulmonary or extrapulmonary, that may pose a variable degree of burden on the patient regarding higher risks of exacerbation and hospitalisation,overtreatment caused by poor asthma control ,that could lead to other complications and lower treatment adherence, higher healthcare costs, and decreased quality of life. **Objective:** The study aims to assess the presence of comorbidities in children with reccurent wheezing and allergic asthma. **Material and methods:** We conducted a retrospective observational study that included children with asthma examined in the Ambulatory Department of Allergology at the Emergency County Hospital Tg.Mures. Patients taken into consideration attended at least one visit between 01.01.2022-01.12.2023, all of them have detailed transcripts about history, clinical examination specific allergology procedures, treatment. The focus was on comorbidities presence. **Results :** In this study were included 109 patients between the ages of 0-18 years old, 31

with the diagnosis of recurrent wheezing (RW) (0-5 y/o) and 78 with allergic asthma (AB) (6 -18 y/o). In the first group we found 26 patients with comorbidities , the most important being recurrent respiratory infections (37,78%) , followed by allergic rhinitis (22,22%) , atopic dermatitis (13,33%) ; in the second group 70 patients had associated comorbidities , the most prevalent being allergic rhinitis (35,66%) , recurrent respiratory infections (24,03%) , allergic rhinoconjunctivitis (13,18%). The most common allergen found in both study groups were the common house-dust mites (Dermatophagoides farinae and pteronyssinus) : 64,52% in children with recurrent wheezing and 78,21% in children with asthma ; other common allergens were Gramineae Pollen 25,80% , Ambrosia flowers 16,13% for RW and Gramineae Pollen 33,33%, mold 15,38% , animal epithelia and hair 14,10% for asthma. **Conclusions:** The key takeaway is the need of better understanding comorbidities associated with asthma and recurrent wheezing , and their mixture of symptoms , because this may lead to propper treatment and better disease control.

Keywords: ASTHMA, RECURRENT WHEEZING, PEDIATRIC, ALLERGENS

METHODS OF MONITORING INSULIN-DEPENDENT DIABETES MELLITUS IN THE AGE OF TECHNOLOGY

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Background: Type 1 diabetes mellitus (T1DM) is an endocrine disorder in which pancreatic β-cells stop producing insulin, usually due to autoimmune destruction. This leads to hyperglycemia and ketosis. CGM (continous glucose monitoring system) and CSII (Continous subcutaneous insulin infusion system) are modern methods to manage T1D. **Objective:** Our main objectives were to group the patients diagnosed with T1D according to age at diagnosis, sex, environment, method of onset, personal pathological and hereditary history, to compare the HbA1c level in patients using CGM/CSII vs classically monitored patients and to identify the impact of modern blood glucose monitoring methods on the quality of life (QoL). **Material and methods:** 143 T1D patients in the Pediatric Clinic I of the Târgu Mureș County Emergency Clinical Hospital. A retrospective, observational analytical study, that includes patients admitted between January 1, 2019 and December 31, 2023. The mandatory inclusion criterion is the diagnosis of T1D. 20 (13,98%) of the patients included in the study group use an insulin pump, 18 of them having an augmented pump-sensor system.A form was completed by the legal representatives of the pediatric patients. The data was analysed in Excel. **Results :** Diabetic ketoacidosis (79%) was the main way of onset, compared to the remaining 21% diagnosed following routine medical tests or intercurrents. 61 (42.7%) use CGM, while 82 (57.3%) are monitored classically. A statistically significant difference was observed ($p<0.0001$ Chi square test) comparing the CGM users and classically monitored patients, highlighting a significantly higher incidence of values above 8% (46.3% vs 9.8%) in those without a sensor, respectively a significantly higher incidence of HbA1c below 8% (better glycemic control) in those using CGM. 100% of the CGM users argued that hypoglycemia is easier to prevent with the help of the sensor. A statistically significant difference was observed ($p<0.0008$ Chi square test) comparing the CSII users vs insulin pen users. A significantly higher incidence of values above 8% of HbA1c, therefore a poor glycemic control, was observed in patients without a pump (35% vs 0%), respectively a significantly higher incidence of HbA1c<8% values (better glycemic control) in those with CSII. The transition to modern monitoring systems was considered easy by the most of the users and parents. 90% of the CGM users and 100% of the CSII users considered that the new technologies increase the QoL. **Conclusions:** CGM and CSII are modern medical tools that determine both the improvement of metabolic control (HbA1c) and increase the QoL in T1D patients.

Keywords: T1DM, CGM, CSII, insulin

BULLYING IN THE ACADEMIC ENVIRONMENT.

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Background: The population is divided into two camps: the aggressors and the aggressed. In the long run, both sides suffer. The aggressed tend to become individuals with low self-esteem, insecure about themselves, and with various deficiencies in social integration. Meanwhile, the aggressors tend to flirt with the darker side of life, some

even ending up on the criminal side. Both camps can come from unstable or problematic families. This trend has gained momentum also due to adults such as teachers, parents, guardians, as they do not take bullying seriously. They consider it simply teasing among peers that most likely cannot have negative repercussions in the medium or long term, right? **Objective:** To bring the term 'bullying' into people's perspective. To find ways to diminish this phenomenon. **Material and methods:** As a method of psychological investigation, an anonymous questionnaire consisting of 19 questions was used, encompassing both demographic questions (gender, age, year of study, and faculty) and those related to the subject matter. The sample targeted 57 young adults from the university environment, comprising 45.6% females and 54.4% males, with data collection taking place between September 2023 and December 2023. **Results :** Following data analysis, it was observed that the majority of individuals had experienced a bullying situation (77.2%), while 15.8% had not experienced such a situation, and the remaining 7% were unsure if they had experienced it. Among those who completed the questionnaire, 61.4% believe they can receive help from outside sources to overcome such situations, while 22.8% believe they have to cope on their own, and the remaining 15.8% are unsure. The study conducted demonstrates the complex nature of individuals and the changes they may undergo throughout their lives. Thus, 24.6% of individuals have experienced the role of the aggressor, 21.1% are not sure, and the majority have never been in this position (54.4%). A person's character is directly influenced by their past, experiences, and choices made. An important pillar in this development is childhood sports; unfortunately, only 47.4% have practiced a sport, with the majority (50.9%) not doing so. **Conclusions:** In conclusion, overcoming a bullying situation requires both the involvement of close ones and strong personal character. Character can be well built and strengthened through practicing high-performance sports from childhood.

Keywords: Bullying, Aggressor, Victim

FACTORS ASSOCIATED WITH MALNUTRITION AND ITS IMPACT ON POST PERCUTANEUS REVASCULARISATION OUTCOMES IN AMI PATIENTS

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Background: Hospitalized individuals with acute myocardial infarction (AMI) who show altered nutritional status are likely to have a worse clinical prognosis. However, the prognostic significance of malnutrition in patients with critical stage of AMI has not received adequate attention. **Objective:** Discovering factors associated with damaged nutritional status in hospitalized patients with resvascularized AMI. **Material and methods:** Retrospective observational study by collecting information from the observation sheets of AMI patients admitted to the Cardiology Department, SCJU Tg Mures between September and December 2020. Depending on the nutritional status calculated with the GNRI score, the patients were divided into 2 study groups, those with impaired nutritional status (GNRI<98) and those with normal nutritional status (GNRI≥ 98) **Results :** A group of 99 patients was investigated, and according to the GNRI score, almost thirty-three percent of them (30.3%) presented an impaired nutritional status. Out of the total of 99 patients, 7 patients died in the hospital, all of them having impaired nutritional status, p=0.0001. Of the total number of patients with poor nutritional status, during hospitalization, 23.3% experienced cardio-respiratory failure (p=0.0001), 30% displayed supraventricular arrhythmias (p=0.001), and 46.7% necessitated inotropic support (p=0.0001). Malnourished patients had considerably extended hospitalizations in CCU, p=0.02, and hsCRP values were significantly higher both at the initial moment and 5 days after AMI. In the logistic regression analysis, variables significantly associated with malnutrition risk (GNRI<98) were inotropic support (OR: 4.68), cardio-respirator failure in the hospital (OR: 11.85), and supraventricular arrhythmias (OR=11.81). **Conclusions:** This study established a connection between a nutritional deficiency and a higher risk of complications, an increased inflamatory status, death inside the hospital, and longer hospitalization days in cardiac care units in patients with acute myocardial infarction who experienced revascularization.

Keywords: altered nutritional status, geriatric nutritional risk index, myocardial infarction, complications

THROMBOEMBOLIC RISK MANAGEMENT OF PATIENTS WITH PERMANENT ATRIAL FIBRILLATION - RETROSPECTIVE STUDY

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Background: One of the most common arrythmias, associated with an increased risk of thromboembolic events, is atrial fibrillation (AF). The challenges in addressing thromboembolic risks are heightened in cases of permanent atrial fibrillation due to the sustained nature of the arrhythmia. The management of this condition and its related complications poses a genuine challenge to the healthcare system, as it has the capacity to impact cardiac function, overall health, and quality of life. **Objective:** This study aims to explore and observe the prevalence of co-existing conditions in patients with permanent atrial fibrillation alongside the current strategies and therapeutic approaches in the management of thromboembolic risks . **Material and methods:** The study group consisted of 140 patients with permanent AF. Data on patients were gathered from the discharge records of individuals who were admitted to Targu Mures County Clinic Hospital clinic during the period spanning from September to December 2020. We examined the relevant data that we collected, such as associated cardiac comorbidities, thromboembolic events, and anticoagulant / antiplatelet treatments. **Results :** The findings underscore the percentage of patients that received anticoagulant treatment (71%), and which agent was used, as well as the administration path. Moreover, we observed the prevalence of cardiac comorbidities, such as congestive cardiac failure, left ventricular failure, chronic ischaemic cardiopathy, pericarditis and pulmonary hypertension. Furthermore, we analysed the relationship between the thromboembolic events and the anticoagulant treatment, observing that subcutaneous LMWH was the most used anticoagulant agent for patients with or without thromboembolic events, followed by oral coumarin anticoagulants and oral NOAC anticoagulants. **Conclusions:** The key takeaway is the imperative for individualized risk stratification, considering patient-specific factors like comorbidities, risk factors, and treatment protocols. This approach is crucial in tailoring thromboembolic risk management strategies to the unique needs and preferences of each patient. As we navigate the future of managing thromboembolic risks in permanent AF, further research is warranted to refine risk stratification models and explore personalized anticoagulation regimens.

Keywords: Atrial Fibrillation, Anticoagulant treatment, Thromboembolic events

ANATOMICAL-CLINICAL CORRELATIONS OF HELICOBACTER PYLORI INFECTION

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Background: Helicobacter pylori is a gram-negative bacillus that colonizes half of the world's population. Through means of host immunity evasion and tissue injury mechanisms, the pathogen is responsible for the development of chronic gastritis, peptic ulcer disease, gastric cancer, and non-gastrointestinal diseases. **Objective:** The first objective is to determine the prevalence of Helicobacter pylori infection in patients undergoing upper gastrointestinal endoscopy. The second objective is to compare symptoms, endoscopic appearance, and histopathology results between Helicobacter pylori negative and positive patients and to establish if the macroscopic appearance influences the microscopic aspect of the gastric mucosa in the Helicobacter pylori positive population. **Material and methods:** From 2019 to 2023, 7219 patients had been subjected to gastroscopic evaluation in the gastrointestinal endoscopy unit of the Emergency County Hospital of Târgu Mureș from which 2640 patients underwent upper gastrointestinal biopsy sampling. The presence of Helicobacter pylori infection was confirmed by histopathologic examination of 453 patients. Data analysis was carried out using the Microsoft Excel 365 and Epi Info GraphPad InStat 3 softwares, applying the Chi-square test with a level of significance of 0.05. **Results :** The prevalence of Helicobacter pylori infection over the course of 2019-2023 was 17.41% with a decrease in trend over the years and an increase with the age of the patients. 47.02% of H. pylori positive patients belong to rural areas (p=0.0145). In terms of endoscopic findings, in the Helicobacter pylori positive population: 23.87% were diagnosed with chronic gastritis (p<0.0001), 25.17% presented evidence of erythematous gastritis (p<0.0001), 14.79% presented gastric erosions (p<0.0001). Gastric ulcers were present in 17% of patients (p=0.0004), and duodenal ulcers were present in 16.56% of patients (p<0.0001). GERDS was found in 14.57% of patients (p=0.0463) and 5.96% of patients were diagnosed with duodenitis (p=0.0267). The histopathologic exam

of the gastric tissue reveals that 14.79% of H. pylori positive patients developed glandular atrophy (p<0.0001). 24.5% of the H. pylori positive patients developed intestinal metaplasia and 2.64% were found with dysplasia of the gastric mucosa but with no significant association (p>0.05). **Conclusions:** Helicobacter pylori infection is associated with older patients from rural areas and is a powerful risk factor for the presence of gastritis lesions, gastric and duodenal ulcers, and glandular atrophy. The positivity rate of Helicobacter pylori shows a decrease in trend over the last five years.

Keywords: Helicobacter pylori, Endoscopy, Histopathology

COVID INFECTION AMONG PATIENTS WITH HEPATIC CARCINOMA

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Background: Covid-19 is an infectious disease caused by the SARS-CoV-2 virus and its symptoms can vary from a simple cold to pneumonia and even respiratory distress. Among millions of people who were infected, a more vulnerable category were the oncological patients, who shown more severe complications and higher mortality rates due to their compromised immune system which was the result of both oncological treatment and the effect of cancer itself. **Objective:** The aim of this study is to observe if patients with carcinomas, especially with hepatic carcinoma had a worse outcome and to see which of the altered biochemical markers could have predicted the risk of more severe Covid infection. **Material and methods:** This research is a retrospective study which was performed on 84 oncological patients who were hospitalized between February 2020 and November 2021 in the palliatives care unit in Mureș Clinical Hospital. The ones previously diagnosed with hepatic carcinoma and had a more complicated disease. Their lab results and evolution were analysed during this study aiming to see if their primary health condition could have led to a more severe Covid infection. **Results :** Out of the 84 patients, 58 (69.04%) of them had improved symptoms when discharged, while 26(30,96%) did not present any improvements. 36(42.85%) patients in this study had their liver affected by a carcinoma or multiple hepatic metastasis due to different types of aggressive cancers. Out of the 36 subjects with liver damage, 20 of them (55.55%) had improved symptoms when discharged, 15(41.66%) did not show any improvements in their health condition and 1(2.77%) was deceased. Worse outcomes were seen in cases with higher levels of INR (p=0.008), total(p=0.03) and direct(p=0.0001) bilirubin and decreased levels of albumin (p=0.05). **Conclusions:** This study shows the association between oncological diseases such as hepatic carcinomas or metastasis and a higher risk of complications such as a more severe inflammatory systemic reaction, dramatic weight decrease, thrombophlebitis, early liver failure and a higher mortality rate during the Covid infection. The hepatic biochemical markers such as INR, bilirubin, and albumin were indicators of an impaired liver function, being the consequence of both the high number of angiotensin II receptors located in the liver and the direct damaging effect of cytokines on the hepatic cells.

Keywords: Covid, hepatic carcinoma, oncology

EVALUATING THE CONNECTION BETWEEN LESION LOCALIZATION AND QUALITY OF LIFE IN PATIENTS WITH MODERATE-SEVERE PSORIASIS

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Background: Psoriasis is a chronic autoimmune disease characterized by significant dermatological manifestations and systemic implications. While much of the research has focused on the clinical and systemic aspects of psoriasis, the impact of lesion localization on the quality of life remains underexplored. **Objective:** This study aims to elucidate the relationship between the localization of psoriasis lesions and the quality of life among patients with moderate to severe forms of the disease, providing insights into the nuanced ways in which different lesion sites affect daily living and psychological well-being. **Material and methods:** The study analyzed data from 29 patients with moderate to severe psoriasis, focusing on the Dermatology Life Quality Index (DLQI), Psoriasis Area and Severity Index (PASI), Psoriasis Scalp Severity Index (PSSI), Nail Psoriazis Severity Index(NAPSI), Erythema, Scaling, Induration, Fissuring Scale(ESIF). A detailed categorization approach was utilized to examine the correlation between specific lesion sites and their impact on the QoL. The statistical analyses conducted included the Mann-Whitney U test, t-test, and Pearson's correlation coefficient. **Results :** Of the patients

considered, almost all presented with special area involvement; specifically, ESIF scores were noted in 28 patients, PSSI in 27 and NAPSI in 3. Average scores observed were 9.67 for PASI, 2.21 for PSSI, 4.07 for ESIF, and 7.9 for DLQI. Gender distribution was nearly equal, with 15 females and 14 males, and an average age of 53 years. Average scores for males were 11.19 (PASI), 2.4 (PSSI), 1.31 (ESIF), and 5.29 (DLQI), while for females, they were 8.35 (PASI), 2.04 (PSSI), 6.47 (ESIF), and 10.33 (DLQI). No statistically significant differences were found between genders for PASI(p-value=0.365), PSSI(p-value=0.853), ESIF(p-value=0.153), based on t-test results. According to Pearson's correlation coefficient, correlations between PASI, PSSI, ESIF, and DLQI scores were mostly weak, with a moderate positive correlation between PSSI and DLQI (0.441), indicating that higher PSSI scores correlate with higher DLQI scores. Asessing the relationship between DLQI scores and genders, a t-test showed no statistically significant difference(p-value = 0.089). **Conclusions:** The study underscores the significance of lesion localization as a crucial factor influencing the quality of life in patients with moderate to severe psoriasis. It advocates for personalized treatment plans that address both the physical manifestations and the psychological and social implications of the disease, aiming to improve patient outcomes and QoL.

Keywords: Psoriasis, Lesion Localization, Quality of Life(QoL), Dermatology Life Quality Index (DLQI)

PREVALENCE AND EVOLUTION OF OSTEOPOROSIS IN CUSHING'S SYNDROME

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Background: Osteoporoza este cea mai frecventă afecțiune sistemică osoasă, reprezentând o problemă majoră de sănătate publică cu implicații medicale și sociale semnificative. Prevalența osteoporozei crește exponențial pe măsură ce populația îmbătrânește și este larg răspândită între ambele sexe și toate rasele, femeia fiind o prioritate. Osteoporoza indusă de glucocorticoizi este cea mai frecventă formă de tulburare osoasă secundară. Deteriorarea structurală și funcțională a sistemului osos este o cauză relevantă de morbiditate și dizabilitate la pacienții cu sindrom Cushing. **Objective:** Scopul acestui studiu este de a înțelege impactul sindromului Cushing asupra sănătății osoase, progresia acestuia și de a sublinia importanța diagnosticării și tratării acestei afecțiuni pentru a preveni consecințele grave ale osteoporozei. **Material and methods:** În acest studiu, am analizat retrospectiv date de la 30 de pacienți de diferite vârste și sexe, pe o perioadă de 3 ani, selectați cu ajutorul informațiilor furnizate de Spitalul Clinic Județean Târgu Mureș. S-au format două grupuri, cei care prezintă osteoporoză în cadrul Sindromului Cushing și, respectiv, cei care, în ciuda faptului că au patologul mai sus menționat, nu au dezvoltat osteoporoză. Analiza datelor statistice a fost efectuată utilizând SPSS V20.0. Testul T Student parametric a fost folosit pentru testarea ipotezelor legate de date continue, în timp ce testul chi-pătrat a fost folosit pentru asocieri între anumiți parametri. **Results :** Adenomul suprarenal (ACTH - independent) apare cel mai frecvent la pacientii cu sindrom Cushing si osteoporoza, comparativ cu cei cu sindrom Cushing fara osteoporoza, cu ap=0,46, care nu a fost semnificativ statistic. Totuși, studiul a arătat că există o diferență semnificativă din punct de vedere statistic între cele 2 loturi, pacienții cu boala Cushing și osteoporoză au o vârstă semnificativ mai mare decât pacienții cu boala Cushing, 67,69 ani vs. 52,36 ani, p=0,006 . **Conclusions:** S-a observat că hipercorticismul apare predominant la femei (83%), adenom suprarenal fiind cea mai frecventă cauză. Cele mai multe cazuri de osteoporoză în sindromul Cushing au fost raportate la pacienții vârstnici. Din totalul pacienților care prezentau hipercorticism și osteoporoză, o proporție de 61,54% au dezvoltat o formă severă de osteoporoză, cu modificări vizibile la radiografia coloanei vertebrale.

Keywords: Osteoporosis, hypercorticism, Cushing's disease

PNEUMOCOCCAL VACCINE- A NEW OVERVIEW OF S. PNEUMONIAE PROPHYLAXIS

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Background: The leading cause of death regarding lower respiratory tract disease is known to be pneumococcal pneumonia, grossing a 1,2 million deaths annually. S. pneumoniae is a Gram-positive coccus, usually found as diplococcus, and naturally inhabits the oropharynx. After colonization, it can expand to the lungs, sinuses, or middle ear. In the view of the continuous curiosity and misconstruing surrounding vaccines nowadays, the burden of informing and educating the non-medical community falls on primary healthcare workers. **Objective:** The aim of the study is to highlight the perception of the primary healthcare workers over how the national immunization

program against pneumococcal infection is being perceived by the population, also including the hurdles that the program may face. **Material and methods:** The study was based on a survey of 32 family physicians attending a symposium on a separate matter than the one being surveyed, so that there isn't non-external information that may influence. Out of the 32 physicians 19 practice in the urban area, whereas 13 in the rural one. The survey touched on issues regarding the aspects that may dissuade the patients in the risk group in accessing vaccination, and also the personal view of the professionals on the vaccination, especially after being compensated. **Results :** 62,5% of the practitioners questioned were able to identify all the risk categories that fit the program criteria. Out of the high-risk categories that beneficiates from the program, the one that accessed the vaccine the most are the ones suffering of chronic respiratory disease, with a stagnantly 78,1%. Regarding the reasons that determine the patients not to get vaccinated 68,8% have evoked the fear of side effects. The age group that accesses the vaccination the most have been reported to be the elderly population with an 81,3%. 53,1% of them consider that the immunization rates have improved after the program implementation, and 81,3% point out the insufficient mediatization of the program. **Conclusions:** By improving the population level of information, we could increase the vaccination rates. The target area that needs to be addressed are the misinformation regarding side effects.

Keywords: S. pneumoniae, vaccine, questionnaire

RISK ASSESSMENT IN PULMONARY HYPERTENSION PATIENTS, SINGLE CENTER ANALYSIS

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Background: Pulmonary hypertension (PH) is a progressive disease in which the mean pulmonary arterial pressure is greater than 20 mmHg. There are 5 main groups explaining the underlying cause of the disease: 1 - pulmonary arterial hypertension; 2- left heart disease; 3- pulmonary disease; 4- chronic pulmonary thromboembolism; and 5- multifactorial pathology. The Reveal Lite 2 score is used to assess patients' risk for 1 year mortality. **Objective:** This study aims to assess risk in patients depending on their age, pulmonary hypertension group and functional class, and Reveal Lite 2 score. **Material and methods:** We designed a retrospective, observational study, on 65 patients from 2016 to 2023. All the patients included in the study were diagnosed with pulmonary hypertension and were being monitored and using targeted medical therapy in the Internal Medicine II - Cardiology Department, Emergency Clinical County Hospital of Targu Mures. **Results :** Patients' data were computed according to their etiology. In PH group 1.1, the mean age is 59,87 y.o., +/-SD of 14,07 years, the mean functional class is 2,366 and the Reveal Lite 2 mean is 6,155; in PH group 1.2, the mean age is 48,33 y.o., +/-SD of 9,56 years, the mean functional class is 2 and the Reveal Lite mean is 4,33; in PH group 1.4.1, the mean age is 54,86 y.o., +/-SD of 6,5 years, the mean functional class is 2,85 and the Reveal Lite 2 mean is 7; in PH group 1.4.4, the mean age is 35,93 y.o., +/-SD 15,65 years, the mean functional class is 2,153 and the Reveal Lite 2 mean is 5,441; in PH group 4.1, the mean age is 62,95 y.o., +/-SD 9,963 years, the mean functional class is 2,42 and the Reveal Lite 2 mean is 7,26. Preliminary statistical analysis showed a statistically significant difference between Reveal Lite 2 scores calculated for each group ($p < 0,0001$). **Conclusions:** Different PH groups have different predictions of risk based on etiologic factors. Further analysis will determine if these findings correlate with the TAPSE/PASP ratio, an echocardiographic parameter which has been previously used to predict pulmonary hypertension prognosis in patients.

Keywords: Pulmonary hypertension, Echocardiography, Reveal Lite 2

VICES OF USING SERUM PANCREATIC ENZYMES AS A DIAGNOSTIC CRITERION IN ACUTE PANCREATITIS

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Background: Acute pancreatitis develops due to early, intraductal activation of pancreatic pro-enzymes with the subsequent trigger of the innate immune system, evolving as an inflammatory injury of the pancreatic parenchyma and peripancreatic tissues. The diagnosis of acute pancreatitis is established, according to Revised Atlanta Classification, by meeting at least 2 out of 3 criteria from: typical abdominal pain, elevation of serum pancreatic enzymes(>3x normal values) and suggestive imagistic findings of disease. **Objective:** The primary objective of

this study is to determine the sensitivity and the false negative rate of the enzymatic diagnostic criterion. Secondary objectives consists of studying (1)the pancreatic enzymes efficacy in assessing the severity form of disease and (2)the relationship between etiology and the enzymatic values at admission. **Material and methods:** Our retrospective, observational study was conducted on a group of 340 patients with acute pancreatitis, hospitalized between 2020-2022 in the Department of Gastroenterology of the Emergency Clinical Hospital Tîrgu Mureș. The data were processed using Microsoft Office and the statistical analysis was performed in GraphPad, using Chi-square Test. **Results :** This study found 105 cases with serum pancreatic enzymes values below the diagnostic limit, resulting in a sensitivity of 69% and a false negative rate of 31%, thus, in almost 1 out of 3 cases of acute pancreatitis, the diagnosis might be mistaken without an abdominal imagistic evaluation. There was no statistically significant association between the elevation of the pancreatic enzymes and the severe form of acute pancreatitis(p=0,8907). There was a highly statistically significant association between biliary acute pancreatitis and the elevation of the pancreatic enzymes(p<0,0001), with a positive association between the biliary etiology and elevated pancreatic enzymes at the admission(RR=1,418, 95% CI, 1,245 to 1,615). The study found as well a statistically significant association between the alcoholic etiology and the elevation of the pancreatic enzymes(p=0,0014), with a negative association between the alcoholic etiology and high pancreatic enzymes at the onset of acute pancreatitis(RR=0,7308, 95% CI, 0,5815 to 0,9185). **Conclusions:** Serum pancreatic enzymes are not an accurate diagnostic criterion in acute pancreatitis and they cannot assess or predict the severe form of disease. The biliary etiology is associated with higher values of pancreatic enzymes, resulting in a higher sensitivity of the enzymatic criterion, but a lower specificity. The alcoholic etiology is associated with lower enzymatic values, causing a lower sensitivity of the enzimatic criterion, but a higher specificity.

Keywords: acute pancreatitis, pancreatic enzymes, severity, etiology

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PARTICULARITIES OF INFLAMMATION IN SECONDARY TUBERCULOSIS

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Background: Tuberculosis (TB) is the leading killer among all infectious diseases worldwide, despite extensive use of the Mycobacterium bovis bacillus Calmette-Guerin (BCG) vaccine. When the host's immune system weakens, the previously asymptomatic dormant bacteria transforms into a transmissible, active state. Neutrophil/lymphocyte ratio seem to be a reliable biomarker to distinguish an active TB from a latent one. **Objective:** This study's goals included examining the variation in the neutrophil/lymphocyte ratio with smoking status, different types of associated comorbidities, or COVID infection, as well as the variability of this ratio's value in the group of patients analyzed between the time of hospitalization and the time of discharge (after treatment). **Material and methods:** In order to conduct this retrospective study, we gathered the required information from the observation sheets of patients who were treated for pulmonary tuberculosis in the Mures County Clinical Hospital's Pneumology Department between October 2, 2022, and October 2, 2023. Inclusion criteria: Patients with a diagnosis of pulmonary tuberculosis who have been continuously admitted to the Pneumology/TB Department. Exclusion criteria: Patients who were regularly admitted to the TB Department and Pneumology ward, but whose biohumoral results were not accessible for analysis. After analyzing a database containing 140 hospitalized patients, 105 patients were included in the analyzed group after the criteria for inclusion and exclusion were applied. **Results :** The analyzed group consisted of 105 patients, in which the neutrophil/lymphocyte ratio was calculated. The recorded average value of the ratio was 6.92. Elevated values were recorded in the group with associated comorbidities such as cachexia, anemia, and smokinng. The neutrophil/lymphocyte ratio value in patients who associated SarsCov2 infection was 4.34. Among the 105 pacients analyzed, 67 were smokers . The association of smoking determined an increased value of neutrophil/lymfocyte ratio up to 7.95. The age group over 65 years registered higher values of neutrophil/lymphocyte ratio (7.82). **Conclusions:** The association of comorbidities such as cachexia or anemia in patients with pulmonary tuberculosis has led to much higher values of neutrophil/lymphocyte since admission, which could represent a useful topic in terms of prevention of these risk factors. Smoking is a risk factor that contributes to the increase of inflammation.

Keywords: pulmonary tuberculosis, neutrophil/lymphocyte ratio, inflammation

THE IMPACT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN PATIENTS WITH ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION TREATED BY PRIMARY CORONARY ANGIOPLASTY

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Background: Chronic obstructive pulmonary disease (COPD) and ST-segment elevation myocardial infarction (STEMI) represent two distinct, yet frequently overlapping domains. The coexistence of COPD and STEMI poses unique clinical dilemmas, as they often exhibit shared risk factors and pathophysiological mechanisms, while demanding tailored therapeutic approaches. Moreover, the presence of COPD complicates the diagnostic and therapeutic landscape of STEMI. **Objective:** The objective of the study was to analyze the effect of COPD on STEMI patients treated by primary coronary angioplasty (PCI) and on their management. **Material and methods:** A retrospective cohort study was conducted, including all STEMI patients treated by primary PCI in our center during the period 2011-2019. Data regarding demographic and clinical factors such as comorbidities (cardiovascular, respiratory, renal), risk factors (smoking), and patient management (in-hospital medication, procedural outcomes, medication at discharge) was collected and analyzed. Correlations between the presence of COPD, the risk factors and STEMI outcomes were assessed. **Results :** The study included 1,094 patients (median age 61 [26-89] years; 71.4% male). Compared to patients without COPD, those with COPD were older, less likely to be male, and more likely to come from rural areas (all $p< 0.05$). The presence of COPD was associated with increased prevalence of hypertension, heart failure, and chronic kidney disease (all $p< 0.05$) and with higher Killip class at presentation (26.3% vs. 11.5%, $p< 0.001$). During hospitalization, patients with COPD received significantly more often inotropic agents (17.5% vs. 7.6%, $p< 0.01$) and loop diuretics (55.0% vs. 29.5%, $p< 0.001$). In multivariate logistic regression analysis, the presence of COPD remained an independent predictor for higher Killip class at presentation and for receiving inotropic agents and loop diuretics during hospitalization (all $p< 0.05$). The presence of COPD did not associate with higher fatality ratio (0.0% vs 0.2%, $p = 0.69$), but predicted higher loop diuretics ($p<0.01$) and lower beta-blockers ($p<0.001$) rate of prescription at discharge. **Conclusions:** In the present study, COPD was associated with more severe forms of STEMI (more severely altered hemodynamic status, both at admission and throughout hospitalization). The data underline the need for closer monitoring and rapid implementation of hemodynamic support methods in STEMI patients who also present with COPD.

Keywords: Chronic Obstructive Pulmonary Disease, ST-elevation Myocardial Infarction, primary coronary angioplasty

EVOLUTION OF INFLAMMATORY BOWEL DISEASE UNDER BIOLOGICAL TREATMENT

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Background: Inflammatory bowel disease involves repeated episodes of inflammation in the gastrointestinal tract.Biological drugs are reserved for moderate to severe cases of the disease that are not responding to other options of treatment. **Objective:** The main of this study is to track the laboratory results including the routine blood cell count and biochemical parameters, faecal calprotectin and endoscopic findings after 6 months of biological treatment for patients with inflammatory bowel disease and to determine the prevalence of the disease by sex, age and clinical manifestations. **Material and methods:** We conducted a longitudinal retrospective study including 27 patients with inflammatory bowel disease who received biologic therapy, admitted to the Gastroenterology department within the Emergency Clinical Hospital Targu Mures, between the years 2022 and 2024. **Results :** Patients included in the study were divided in two groups: 13 patients with Crohn's disease (56%) and 14 patients with ulcerative colitis (48%). In terms of demographic distribution, of the total number of cases, 59% of patients are male and 41%, are female aged 19 to 74 with an average of 43.96 ± 15.89 years (standard deviation). As symptomatology at onset, 52% of the patients included in the study had diarrhoea and rectorrhagia, and 48% had weight loss associated with nausea and vomiting.By tracking associated complications, 41% of patients experienced intestinal complications (lower gastrointestinal bleeding, sthenosis, abscesses, fistulas) and 59% had extraintestinal manifestations (arthritis, erythema nodosum, hepatic steatosis). Regarding the therapeutic conduct,

all patients included in the study were subjected to biologic therapy and 33% of them were treated with corticosteroids and immunosuppressants.According to statistical analysis of biological parameters (hemoleucogram, liver function, kidney function, inflammatory markers) at onset and at 6 months post-therapy, no significant difference in values was observed between the two groups (95% CI 0.01-1.05, p=0.05). By dosing the faecal calprotectin at onset and at 6 months post-treatment, a significant difference was observed (95% CI p=0.001), with a dramatic decrease in its value in both groups.By comparing the endoscopic appearance at onset vs. after 6 months of treatment, a significant difference was noticed in terms of remission of the disease in both groups (95% CI, p=0.03). **Conclusions:** There are no significant differences in biological parameters after 6 months of treatment with biologics in neither one of the two groups of patients with inflammatory bowel disease, whereas a decrease in the value of faecal calprotectin and endoscopic remission after 6 months are observed in both groups.

Keywords: inflammatory bowel disease, biologic therapy, calprotectin

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METFORMIN AND HIGH BLOOD PRESSURE - WHAT TO BE AWARE OF WHEN ADMINISTERING IT

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Background: Metformin (dimethylbiguanide) is part of the biguanide class of antidiabetic drugs. It is a first-line drug in the case of type 2 diabetes. After oral administration is quickly absorbed. Its most common side effects are diarrhea, anorexia, nausea, vomiting. The main mechanism of action of Metformin is through the activation of AMP (adenosine monophosphate)-activated protein kinase, a central pathway in metabolic regulation, cell protection and cell survival. As we age, high blood pressure can occur along with diabetes and rise the risk of renal failure and cardiovascular complications. **Objective:** This paper aims to evaluate the interactions of Metformin with antihypertensive medication and other types of interactions such as with vitamin B12 and how does vitamin B12 affects the cardiovascular system. **Material and methods:** This systematic review of literature was shaped trough the usage of databases such as: MedScape, PubMed, UpToDate and Google Scholar. All the literature included in the study was published in English. **Results :** Metformin interacts with antihypertensive medication as it follows: Verapamil decreases the effect of Metformin by possibly inhibiting hepatic uptake of Metformin via OCT1 or other transporters; Thiazides and loop diuretics may reduce the blood glucose-lowering effect of Metformin by inhibiting the function of the beta-islet pancreas; Angiotensin-converting enzyme inhibitors increase the toxicity of Metformin by an unknown mechanism; Amlodipine decreases the effect of Metformin by pharmacodynamic antagonism; Beta-blockers and modulators of sympathetic activity cause a decrease in blood glucose by masking the adrenergic symptoms that signal hypoglycemia. Vitamin B12 has two effects on the cardiovascular system: by preventing the conversion of homocysteine to methionine and through the endocrine system. Homocysteine affects the endothelial function and intrinsic thrombolysis. The endocrine system is sensitive to B12 deficiency. The vitamin is needed for the structure of cell membranes, so that the pituitary gland can measure how much of each hormone is in the blood and adjust as needed. A lack of B12 can cause high levels of neurotransmitters, and excitatory hormones, leading to high blood pressure. Metformin may induce hypovitaminosis B12 through different possible mechanisms, such as altered intestinal motility and interaction with the endocytic receptor cubilin. **Conclusions:** Type 2 diabetes is frequently associated with high blood pressure, especially in the elderly patient. Interactions of Metformin with antihypertensive therapy must be analyzed to maximize the therapeutic effects and minimize the risks. The aim is of increasing the quality of life and life expectancy of patients with complex pathologies.

Keywords: Metformin, high blood pressure, vitamin B12 deficiency, homocysteine

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INVOLVEMENT OF RISK FACTORS IN THE DEVELOPMENT OF TUBERCULOSIS AMONG THE ADULT POPULATION

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Background: Tuberculosis (TB) poses a significant threat to global public health as an epidemic. It is a potentially fatal infection caused by the pathogen Mycobacterium Tuberculosis. At the global level, significant risk factors are formed by substandard living and working conditions linked to increased transmission of TB, as well as factors that

weaken the body's ability to defend itself, such as HIV/SIDA infection, malnutrition, tobacco use, diabetes mellitus, chronic alcoholism and massive air pollution. **Objective:** The main objective of this study is to identify and correlate several risk factors with the form of TB detected in the selected patients. **Material and methods:** In this study, we analysed a number of 155 patients diagnosed with tuberculosis between January 2022 - June 2023 at the Pneumology Clinic of Târgu Mureș. Patients with both pulmonary and extrapulmonary forms of secondary tuberculosis were admitted to this study. Based on clinical and radiological aspects, the patients were grouped according to the clinical form of tuberculosis. **Results :** Using the data collected from patients admission records, we were able to associate the presence of various risk factors with the moderate-severe clinical form of tuberculosis. Among the main identified risk factors are : chronic smoking (OR=6.07, 95% IC= 2.51 - 14.73), chronic alcohol consumption (OR=2.88, 95% IC=1.28-5.44) and poor living conditions (OR=5.62, 95% IC=2.26-13.91). In addition to the previously mentioned factors, we also identified the presence of the following risk factors : rural origin (OR=5.55, 95% IC=2.30-13.40), presence of obstructive pulmonary disease (OR=1.65, 95% IC=0.58-4.71) and occupational exposure to pollutants (OR=1.41, 95% IC=0.29-6.64). Among the important risk factors to mention despite the small number of identified subjects are HIV status (OR=0.20) and the presence of diabetes (OR=0.53). **Conclusions:** Our statistical analysis revealed the presence of a correlation between a more severe form of tuberculosis and several risk factors. These results highlight the complex range of factors contributing to tuberculosis risk and underscore the imperative for interventions aimed to reduce these factors in order to minimize the harmful impact produced by the infection.

Keywords: Risk factors, Tuberculosis, Statistical correlations

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CORRELATIONS BETWEEN MYOCARDIAL VIABILITY ASSESED BY MRI AND MARKERS OF MYOCARDIAL INJURY IN PATIENTS WITH PREVIOUS ACUTE CORONARY SYNDROME

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Background: Myocardial viability (MV) in patients with coronary artery diseases is intensively debated in many studies being important in the assessment of the outcome of the patients and also for guiding the appropriate invasive treatment. Moreover, cardiac magnetic resonance (CMR) is considered an useful noninvasive imagistic tool in the investigation of the MV due to it's increased sensibility and for a direct visualization of the myocardial scar after an acute coronary syndrome. **Objective:** The study objective is to evaluate the correlation between the MV assessed by CMR and markers of myocardial injury: high-sensitive troponin (hscTnI) and myocardial creatine kinase (CK-MB) in patients who suffered an acute coronary syndrome. **Material and methods:** This retrospective study included 57 patients with documented acute myocardial syndrome in the 30 days prior study enrollment with available hscTnI and CK-MB levels recorded during their hospitalization who performed CMR after revascularisation. Computational postprocessing imagining data was done for every patient with dedicated software for assessing the myocardial fibrosis, in the Laboratory of Advanced Research in Cardiac Multimodal Imaging of the Cardio Med Medical Center in Târgu Mureş, Romania. The main parameters that were taken into consideration were the high transmural extent (HTE) of myocardial fibrosis, infarct size percentage. The serum level of hscTnI and CK-MB were determined in dynamic during hospital admission, and the highest level was used for correlation. The study population was divided in two groups based on the transmural extent, group 1 included the patients with HTE <50% and the second group included the patients with HTE≥50% . **Results :** There was a postitive correlation between HTE of myocardial fibrosis and serum levels of hscTnI (r=0.36, p=0.01), as well as between HTE and serum levels of CK-MB (r=0.42, p=0.0021). There was no statistically significant difference between the groups regarding the levels of hscTnI (11411 ng/L, 46857 ng/L, p=0.15) and CK-MB (80.35 µg/L, 140.7 µg/L, p=0.1). **Conclusions:** We observed a strong correlation between the levels of hscTnI, CK-MB and HTE in the study population, suggesting that high levels of this parameters during the acute event can be a predictor for altered myocardial viability after coronary revascularisation.

Keywords: myocardial scar, hscTnI, CK-MB, cardiac magnetic resonance

DECODING RESPIRATORY BACTERIA: 2020-2022 STATS

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Background: In the realm of medical research, understanding the gender-based prevalence of bacterial infections is imperative for effective healthcare management. Such investigations shed light on patterns of infection and aid in the development of targeted intervention strategies. In this study, we delve into the gender-specific distribution of bacterial infections within a given timeframe, elucidating prevalent pathogens and their respective frequencies among male and female patient cohorts. **Objective:** The primary objective of this study is to analyse and compare the incidence of bacterial infections between male and female patients within a defined timeframe. Specifically, we aim to identify the most common pathogens afflicting each gender group and elucidate any notable disparities in infection rates. Additionally, we seek to explore the methods employed for bacterial identification and assess their respective frequencies of use across different departments. **Material and methods:** Data for this retrospective study were sourced from WHONet database within the specified timeframe. Patients were stratified by gender, and incidences of bacterial infections were recorded along with the pathogens identified. Sampling methods like sputum sampling, tracheal aspirate, and bronchial sampling, were utilized for bacterial identification. The dataset was further analysed based on departmental categorizations, including ICU, surgical, medical, and others, to discern any department-specific trends in bacterial identification using a spreadsheet software. **Results :** Within the designated timeframe, male patients exhibited a 30% higher incidence of bacterial infections compared to females. *Staphylococcus aureus* emerged as the predominant pathogen among males, affecting nearly 20% of the cohort, followed by *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, and *Acinetobacter baumannii*. Conversely, *Staphylococcus aureus* prevailed among females, with *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, and *Acinetobacter baumannii* following suit. Sputum sampling and tracheal aspirate were the most commonly utilized methods for bacterial identification. **Conclusions:** The findings of this study underscore notable disparities in the gender-specific prevalence of bacterial infections within the studied timeframe. While *Staphylococcus aureus* predominated in both male and female cohorts, variations in infection rates and prevalent pathogens highlight the im-portance of tailored healthcare approaches. Furthermore, department-specific analyses reveal distinct trends in bacterial identification across ICU, surgical, and medical departments, emphasizing the need for targeted surveillance and intervention strategies.

Keywords: Bacterial infections, Prevalence, Pathogens, Sampling methods

SPECIFIC PECULIARITIES OF PREGNANCY AND CHILDBIRTH EVOLUTION ASSOCIATED WITH DIABETES

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Background: According to the International Diabetes Federation (2021), high glucose levels during pregnancy affect approximately 16.7% of cases, with 80.3% of pregnant women developing gestational diabetes. In the Republic of Moldova, over the last 5 years, diabetes during pregnancy has been observed in around 2.20% of cases, with a 1.5 times increase in morbidity over the last decade. Managing diabetes during pregnancy and labor represents a pressing concern due to potential maternal and fetal complications. **Objective:** This study aims to investigate specific aspects of pregnancy and labor evolution in women with diabetes. **Material and methods:** A retrospective study was conducted on 243 patients at the Tertiary Perinatal Center. Patients were categorized into three groups based on diabetes type: type I diabetes mellitus (DM) in 73 (30.1%) pregnant women, type II DM in 38 (15.6%) cases, and gestational diabetes (GD) in 132 (54.3%) cases. Data on medical history, clinical and laboratory information, fetal well-being (evaluated through cardiotocography (CTG), ultrasound, Doppler velocimetry), pregnancy progression, and childbirth were assessed. **Results :** Patient ages ranged from 17 to 44 years, with a mean age of 30.01±6.05 years. Obesity was prevalent in patients with type II DM (84.2%) and GD (70.5%), while it affected 15.1% of those with type I DM. Complications during pregnancy included: decompensation of type I DM in the third trimester (74.0%), often with diabetic angiopathy and neurological changes (75.3%). Pregnancy-induced hypertension occurred more in GD (18.2%). Severe preeclampsia was

predominant in decompensated type I DM (15.1%) and type II DM (15.8%), often requiring emergency C-section. Diabetic fetopathy (44.9%) was associated with fetal distress and placental complex changes (23.0%), with two perinatal deaths. Preterm births were frequent (51.9%), often due to fetal or maternal reasons. Vaginal delivery occurred in 29.2% with 7 cases of vacuum extraction. C-section was performed in 70.8% due to diabetes decompensation, severe preeclampsia, fetopathy, or scarred uterus. Labor complications included premature rupture of membranes (16.9%), dystocic labor (15.8%), and fetal hypoxia (6.8%). **Conclusions:** Diabetes during pregnancy poses significant medical and social challenges, potentially complicating the perinatal period. Proper management is crucial to prevent maternal and neonatal complications. This study sheds light on the diverse challenges and outcomes associated with diabetes in pregnancy, emphasizing the need for comprehensive care and monitoring.

Keywords: International Diabetes Federation (IDF), Diabetes Mellitus (Type I and II), Gestational Diabetes, Diabetic Fetopathy

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ARGON PLASMA COAGULATION TREATMENT IN RADIATION PROCTITIS PATIENTS

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Background: Radiation proctitis is a pathology of the rectum, usually developed as a result of radiotherapy of a pelvic tumour. Patients who develop radiation proctitis may present symptoms such as diarrhoea, faecal incontinence and mild bleeding in the acute stages. In chronic stages, complications that may occur include rectal strictures as well as ulceration and fistulisation of the rectum. The most common and efficient treatment method at the moment is endoscopic Argon plasma coagulation, which reduces the bleeding and consequently, the blood transfusion requirement. **Objective:** The objective of this presentation is to depict the evolution of a patient diagnosed with radiation proctitis after the second therapy session with Argon plasma coagulation. **Material and methods:** This presentation includes the case of a 86 year old female patient, diagnosed with radiation proctitis secondary to chemo- radiotherapy for a uterine cervix neoplasia. The pathology led to lower digestive tract hemorrhage and moderate secondary anemia. Such a complication of radiation proctitis is usually treated with Argon plasma coagulation. This treatment induces haemostasis and tissue reduction by devitalization. Argon plasma coagulation is a form of electrosurgery. The gas discharges of the argon have a thermal effect on the superficial tissue without coming in direct contact with it. At a 60-80˚C temperature, the denaturation of intracellular proteins occurs. This process is called coagulation and it leads to cell necrosis. **Results :** The patient was stabilised after a blood transfusion and prepared through an enema for her second endoscopic Argon plasma coagulation session. The enema was not completely effective, and the patient was not very cooperant during the endoscopic procedure, which lead to limited treatment efficiency. Even so, numerous angiodysplasias of various dimensions were identified and treated with Argon plasma. **Conclusions:** The patient was stabilised, discharged, prescribed medication and recommended to follow a diet which would help in avoiding constipation or dehydration. The recommended re-evaluation time is a month later, at which point in time the patient may have a third argon plasma coagulation treatment session.

Keywords: Argon plasma coagulation, Radiation proctitis, Radiotherapy, Pelvic tumour

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PREDICTORS OF RE-HOSPITALIZATION IN PATIENTS WITH CHRONIC HEART FAILURE

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Background: Heart failure (HF) is a prevalent and morbid chronic illness. Despite advances in optimal pharmacologic therapy, patients with HF continue to have significant re-hospitalization rates. **Objective:** The objective of this study was to determine whether demographic, clinical, or physiological variables conferred increased risk of re-hospitalization in a HF population. **Material and methods:** Demographic and clinical data were collected from 98 patients admitted with HF to the Cardiology Clinic of Clinical County Emergency Hospital of Targu Mures. The data include the following items: medical history of patients, initial clinical symptoms, precipitating factors of heart failure, preadmission medications, laboratory findings, baseline ECG and echocardiographic findings, in-hospital course. **Results :** Mean age of patients was 64.28+/- 14.3 years. The majority of patients were male (60.3%). The most common comorbidity was coronary artery disease (55.3%)

followed by diabetes (46.1%) and hypertension (42%). The most prevalent symptom was dyspnea (88.2%) followed by Increasing Fatigue (60%), Angina (60%) and orthopnea (20.1%) At 6 months we had 35 patients with readmission caused by HF(35%). Mean age of patients was 70+/-12.1 years, they were more frequently females and they had a 2 times greater risk for rehospitalization than men. Atrial fibrillation (AF) rhythm was detected in 33.7% of patients and was correlated to readmission(p=0.001). Left ventricular ejection fraction(LVEF) ≤ 35 %, higher NT-proBNP and lower hemoglobin were independent predictors of readmission (p<0.05), also increased length of initial hospital stay has been shown to be a predictor of future readmission (p=0.0021). **Conclusions:** Our data suggest that the female sex has been found to be a predictor of re-hospitalization, as well as the presence of AF, lower LVEF, higher NT-proBNP, lower hemoglobin, and the length of hospital stay.

Keywords: predictors of heart failure, heart failure, heart failure readmission, heart failure hospitalization

CLINICAL AND PATHOLOGICAL PERSPECTIVES ON GASTRITIS IN PEDIATRIC PATIENTS: ASSESSMENT AND THERAPEUTIC APPROACHES

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Background: Gastritis is a condition marked by inflammation of the gastric mucosa, can arise from various sources, including infection with due H.Pylori bacteria (a prevalent cause) or the usage of other factors as: medications such as NSAIDs or corticosteroides, excessive alcohol intake, stress or autoimmune factors. **Objective:** The aim of the study is to assess the differences concerning the symptoms, paraclinical parameteres of hemograms (hemoglobin, neutrophils, lymphocytes, platelets) and histopatological changes between H.Pylori gastritis and Non-H.Pylori gastritis. **Material and methods:** We performed a retrospective study on 163 patients aged between 3 to 18 years, hospitalized in the Pediatric Clinic I Târgu-Mureș diagnosed with Gastritis between 01.01.2019 and 01.01.2024. The children were divided into 2 groups: H.Pylori group and Non-H.Pylori group. An upper digestive endoscopy with gastric biopsies and a complete blood count was performed in each case. **Results :** The most frequently affected age group was the category between 14-18 years (58%) and the least frequently involved were children between 3-5 years (3%), additionally the majority of pacients were women (63%). Children from rural areas were the most frequent patients in the total group (52%). The epigastric pain (p=0,0457) was significantly associed with H.Pylori group. Pacients in the Non-H.Pylori group had diffuse abdominal pain at the level of the right hypochondrium, the entire upper abdominal floor or periumbilical (48%). Futhermore, we underscored a statistically significant difference in the duration of hospitalization (p=0,0054) and incidence of emesis (p=0,0253) in the Non-H.Pylori group. In the group with H.Pylori, the most frequent endoscopic appearance was a congested, edematous gastric mucosa type, with a predominantly antral nodular/folicular appearance (n=54) and a histopathological appearance of an inflammatory infiltrate with polymorphonuclear neutrophils in the gastric submucosa (n=54). In the group with Non-H.Pylori, the most frequent endoscopic appearance was represented by hyperemic, edematous gastric mucosa (n=39) and a histopathological appearance of an inflammatory infiltrate with neutrophils and superficial erosions (n=40). We found no statistically significant differences regarding laboratory results between the two groups. **Conclusions:** According to the result, children`s gastritis manifest itself with various clinical and pathological characteristics, influenced by factors such as: age, gender, geographic factors and etiological agents, such as H.Pylori that playing significant roles. Moreover, differences in clinical outcomes and histopathological characteristics between H.Pylori and Non-H.Pylori cases highlight the importance of accurate diagnosis and tailored management approaches.

Keywords: Pediatric, Helicobacter Pylori, Gastritis, Inflammation

THE OUTCOME OF COVID-19 IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Background: COVID-19 is a viral infectious disease caused by severe acute respiratory syndrome coronavirus 2. Type 2 diabetes mellitus (T2DM) is a well-known risk factor for a severe clinical course of COVID-19, which may be associated with adverse outcomes. **Objective:** The aim of the study is to investigate the clinical characteristics and outcomes of T2DM patients hospitalized with COVID-19, quantified by complication and mortality rate. **Material and methods:**

We conducted a retrospective case-control study including patients with a primary diagnosis of type 2 diabetes admitted to the Târgu Mureș Emergency Clinical County Hospital, hospitalized at the 2nd Medical Clinic between January 2021 until December 2021. The study included 320 patients with type 2 diabetes mellitus, which were divided into two groups: COVID positive and COVID negative, all of whom were tested using RT PCR. Data were collected from observation sheets, regarding age, comorbidities, home medication, social habits, laboratory parameters, hospital treatment and complications. Statistical analyzes were performed. **Results :** Out of 320 patients, 110 tested positive for COVID-19. The gender distribution of infected patients was 48.1% female and 51.9% male. The incidence of COVID in men was found to be significantly higher than in women (p=0.02). Among infected women, 52.8% died, while among men, the mortality rate was 52.6%. In patients aged ≤70 years, SARS-CoV-2 infection affected 39.8%, contrary to expectations, with a lower percentage of infections in those aged >70 years, at 30.2%. In the analyzed patients, the diagnosis of COVID-19 was a significant risk factor for mortality (OR=1.84), transfer to the intensive care unit (OR=2.36) and respiratory failure (OR=5.56). However, regarding complications such as thrombosis and sepsis, no significant association was identified (p>0.05). Investigating imaging changes, the ground-glass appearance of lung parenchyma was significantly associated with transfer to the intensive care unit (OR=1.7). The administration of Remdesivir to infected patients did not significantly influence the mortality rate or transfer to the intensive care unit (p>0.05). **Conclusions:** The results of the study confirm the hypothesis that SARS-CoV-2 infection has a negative impact on the progression of type 2 diabetes, with severe evolution. COVID-19 patients with preexisting diabetes have seen elevated rates of hospital admission, severe pneumonia, and mortality. Larger future studies are needed to draw firm conclusions.

Keywords: type 2 diabetes mellitus, COVID-19, outcome

IS CRP/ALBUMIN RATIO A NOVEL MARKER IN PATIENTS WITH ATHEROSCLEROTIC DISEASE?

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Background: Peripheral arterial disease is most commonly caused by atherosclerosis. Because it is often associated with coronary atherosclerosis and high morbidity and mortality, it is important to better identify risk factors and potential new markers for diagnosis and disease modulation. **Objective:** To analyze the relationship between a novel atherosclerosis marker, the CRP/Albumin Ratio, cardiovascular risk factors, incidence and severity of severity of coronary and peripheral arterial disease. **Material and methods:** In this cross-sectional study, 30 patients were included between January and March 2024. We collected data on patient history, conventional cardiovascular risk factors, systolic cardiac function, C-reactive protein (CRP) and serum albumin levels and obtained the ankle-brachial index (ABI) using CW Doppler. The patients were divided in groups based on (a) ABI: Severe PAD: ABI< 0.5, Moderate PAD: ABI <0.9, Normal: ABI >=0.9 and <1.4, and (b) based on history or coronary angiography findings: if they had ischemic heart disease or not. **Results :** The average age of the patients (18 men and 12 women) was 63.7 years. 46% had coronary artery disease, 48.3% had normal ABI measurements, 41.4% have moderate ABI values and 10.3% have severe ABI values. Most patients with atherosclerosis were on optimal medical therapy including antithrombotics, RAAS modulators and statins. We found no statistically significant correlation between the ABI measurements and the PCR/Albumin ratio (p=0.941). Those who had coronary artery disease also had lower ABI measurements (p=0.03). Also, the patients with coronary stents had worse ABI values (p=0.019). LDL levels were significantly lower in patients with coronary lesions (p=0.042). **Conclusions:** Unfortunately, we did not prove our main hypothesis, most probably due to the fact that patients were on optimal medical therapy, including statins. However, our results show that atherosclerosis is a generalized process and coronary and peripheral arterial disease often coexists. Since inflammation plays an important role in the atherosclerothic process, our data suggests that optimal medical therapy reduces inflammation and may reduce global cardiovascular risk, but more research is needed to establish clear correlations.

Keywords: Peripheral Arterial Disease, CRP/Albumin ratio, Cardiovascular Risk Factors

CORRELATING VULNERABILITY MARKERS THROUGH INTRACORONARY OPTICAL COHERENCE TOMOGRAPHY (OCT) IMAGING AND FUNCTIONAL CORONARY ANALYSIS (FFR)

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Background: OCT technology allows real-time visualization of significant details in defining a vulnerable plaque, such as fibrous cap thickness or plaque rupture and stenosis. The Fractional Flow Reserve (FFR) represents a pivotal diagnostic method for assessing the functional significance of coronary stenosis. We posit that the combination of OCT technology and FFR hold significant potential to exert a substantial influence on the prognosis of patients with coronary artery disease, as POST-IT (Portuguese Study on the Evaluation of FFR-Guided Treatment of Coronary Disease), R3F (French FFR Registry), and ILUMIEN I studies demonstrated a modification in therapeutic decision-making based on these technologies. **Objective:** The aim is to prove the alteration of therapeutic decisions based on comprehensive analysis and intracoronary imaging. **Material and methods:** In the present study, a case-control investigation was conducted, involving the enrollment of 60 patients who underwent PCI. These patients were divided into two groups: a control group comprising 30 cases where therapeutic decisions were made based on coronary angiography, and an experimental group where decisions were based on FFR or FFR and OCT findings. Data were collected from patients admitted to the Cardiology department of Emergency Clinical County Hospital in Targu Mures, Romania, between 2021 and 2024. **Results :** In Group 1, the therapeutic decision changed in 19 out of 30 cases (representing 63.6%), while in 11 cases (representing 36.3%), the decision remained unchanged. In Group 2, the decision did not change in any case. The p-value between these two groups is 0.0003 (Relative Risk = 0.6333, 95% Confidence Interval: 0.4823 to 0.8316), indicating the statistical significance of the therapeutic decision change. **Conclusions:** Intracoronary imaging and functional assessment of coronary plaques have become indispensable elements in the arsenal of any cardiologist; moreover, these methods bring benefits in terms of therapeutic decision-making, guiding the physician towards a much more beneficial long-term outcome for the patient.

Keywords: Optical Coherence Tomography, fractional flow reserve, coronary disease, vulnerable plaque

THE ASSESSMENT OF NON-INFECTIOUS GASTRITIS IN CHILDREN

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Background: The gastric mucosa may be affected by numerous factors, the most well-known being the Helicobacter pylori infection. However, the incidence of causes unrelated to infectious diseases has been increasing recently, which may be concerning given the paucity of research and knowledge regarding the factors that could affect the gastric mucosa. **Objective:** Emphasizing the risk factors for gastric mucosal inflammation that are not related to bacterial, viral, or parasitic infections in children assessing the specific characteristics of the population under investigation (gender, age distribution, type of histopathological changes, provenience and laboratory results). **Material and methods:** We performed a retrospective observational study examining the medical records of pediatric patients (aged 1-17 years) diagnosed with acute gastritis, at the Pediatrics I Clinic of the Emergency County Clinical Hospital in Târgu Mureș from 2018 to 2022. **Results :** A total of 141 cases presenting epigastric pain were examined in order to determine the underlying cause. They were divided into two groups based on the findings of the histopathological examination: the study group (79 cases) showing mucosal lesions and the control group (62 cases) not presenting any gastric modifications. The inflammatory infiltrate determines whether a mucosal inflammation is acute or chronic. While polymorphonuclears are prevalent in the acute phase, mononuclears are present in long-term inflammation. Clinical manifestations are more severe in the acute phase including abdominal pain and even gastrointestinal bleeding, while in the chronic cases the pain is associated to indigestion and loss of appetite. Regarding the etiology of gastritis, reactive lesions (48%) were identified in the majority of cases, the most common causes being biliary reflux (24 cases) and proton pomp inhibitor consumption (8 cases). In contrast, the cases of the control group were mainly related to abdominal colonic spasms (13 cases) and duodenitis (6 cases). No significant difference was found between the study group and control group in terms of sex, origin and biliary reflux (p □□□□□□□□ However, the study group's children were

significantly younger than those in the control group (p □□□□□□□□ We found significant differences between the two groups in terms of laboratory findings, the study group presenting significantly lower values of hemoglobin, lymphocytes and neutrophils (p □□□□□□□□ **Conclusions:** Non-infectious gastritis was found in 56% cases, mainly in children of 14-17 years, the acute inflammation often being associated with gastrointestinal hemorrhage. In contrast, in the control group, chronic inflammation of the mucosa was more commonly related to abdominal colonic spasms and constipation in children of 12-15 years.

Keywords: non-infectious gastritis,, gastric inflammation,, children

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CLINICAL ASPECTS OF ALCOHOLIC HEPATOPATHIES

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Background: The consumption of alcohol significantly impacts overall health, with a particular detriment to the liver. Diseases induced by alcohol, such as fatty liver, acute hepatitis, chronic hepatitis, liver cirrhosis, and hepatocellular carcinoma, typically manifest after prolonged periods of excessive alcohol consumption. The Alcohol Use Disorders Identification Test (AUDIT) questionnaire is a screening tool designed to identify the risk of unhealthy alcohol use disorders through a series of ten questions **Objective:** Objective: This study aims to ascertain the efficacy of the AUDIT questionnaire in identifying alcohol-induced diseases. It also presents clinical and paraclinical findings in chronic alcohol-induced hepatopathy. **Material and methods:** A cross-sectional study was conducted, comprising 91 patients in the case group and 32 in the control group. Subjects were selected based on specific inclusion criteria: admission to the Gastroenterology department, Târgu Mureș, from November 2023 to November 2024; diagnosis with alcoholic liver disease; and response to the AUDIT questionnaire. Descriptive statistics were employed to elaborate on patients' demographic characteristics, mean scores for alcohol use and liver disease diagnostic. Patients were divided into two groups based on weekly alcohol use and the total AUDIT score. The case group consisted of patients who scored more than 7 points on the AUDIT (indicating a positive test) and consumed more than 210g of alcohol per week. The control group comprised patients who scored 7 or fewer points on the AUDIT and consumed 210g of alcohol or less per week. Following the division, patients' biomarkers were compared. **Results :** No statistically significant differences were observed in the age of the two groups (mean age of the case group = 58.31±11.09, mean age of the control group = 60.72±10.95, p=0.292). However, the case group exhibited statistically significant higher values of Glutamic Oxaloacetic Transaminase (GOT) (p<0.0001), Glutamic Pyruvic Transaminase (GPT) (p=0.0014), Gamma-Glutamyl Transferase (γGT) (p<0.0001), International Normalized Ratio (INR) (p<0.0001), Bilirubin (p<0.0001), Alkaline Phosphatase (ALPs) (p<0.0001), and Mean Corpuscular Volume (MCV) (p<0.0001) when compared to the control group. Conversely, lower values were observed in the case group when comparing Albumin (p<0.0001), Hemoglobin (p<0.0001), and Thrombocyte count (p<0.0001). **Conclusions:** Conclusion: The results of this study suggest that an AUDIT score greater than 7 identifies patients with harmful alcohol consumption sufficient to alter hepatic biochemical markers. Furthermore, alcohol consumption exceeding 210g per week leads to significantly altered lab results compared to patients who consume less than 210g per week.

Keywords: AUDIT, alchool, liver disease, liver biomarkers.

EVIL EYE MEDICAL TOURISM: SELF REPORTS OF LASER EYE SURGERY IN TURKEY

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Background: Medical tourism, or seeking medical treatment abroad, is prevalent in Turkey, particularly for laser eye surgery. Understanding the viewpoints held by patients who travel for medical purposes could allow local providers to align their services with those offered by international counterparts. **Objective:** This qualitative research analyzed web-based narratives from health travelers in Turkey, comparing them with locals who received similar treatments at the same clinics. The main question was: What can we learn about health travelers' experiences in Turkey through their online narratives? Secondary questions included: (1) What is the medical tourists' satisfaction with their treatments in Turkey? (2) Is dissatisfaction related to travel or medical aspects? **Material and methods:** A total of 40 narratives from medical tourists who visited Turkey (n=22), and locals who served as controls (n=18), were collected. Data were selected using purposeful sampling. Reviews meeting criteria

were included: (1) written by the patient, according either maximum of five stars (12 from medical travelers, 10 from locals) or minimum of one star (10 from medical travelers, 8 from locals) (2) in English, and (3) describing the procedure. The analysis involved open coding to identify themes aligned with the research questions. NVivo Pro Version 11 (QSR International) was utilized to explore relationships. **Results :** Negative reviews from travelers were based on: both medical and travel-related factors (50%), travel and accommodation issues alone (30%, all associated with unexpected costs), and solely procedural concerns (20%). Eye laser procedures elicited similar levels of satisfaction (60%) and dissatisfaction (40%) among medical travelers. Medical dissatisfaction stemmed primarily from unsatisfactory results and incomplete vision restoration (60%), followed by complications, dry eye, photophobia, and corneal pain (30%), as well as lengthy procedures (10%). Locals expressed predominantly satisfaction with the medical procedures, with only 12% reporting dissatisfaction. As with travelers, unexpected costs were the main reason for dissatisfaction for locals (70%). **Conclusions:** Whilst locals express high satisfaction with eye laser procedures, medical travelers are split between satisfaction and dissatisfaction. Dissatisfaction among travelers arises from unsatisfactory results, complications, lengthy procedures, and, most notably, unexpected costs.

Keywords: Medical tourism, Eye laser surgery, Turkey

CLINICAL AND PARACLINICAL FEATURES IN THE EVOLUTION OF EPSTEIN BARR VIRUS INFECTIOUS MONONUCLEOSIS IN CHILDREN

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Background: Infectious mononucleosis is a contagious illness primarily triggered by the Epstein-Barr virus (EBV), accounting for 80-90% of cases. Particularly among children under the age of 5, symptoms are mild or even absent, while adolescents and young adults (in about 50% of cases), typically experience fever, sore throat, lymphadenopathy, headache, skin rash, and hepatosplenomegaly, with liver inflammation occurring in about 80% of cases. **Objective:** Evaluation of the clinical-evolutionary and laboratory characteristics of infectious mononucleosis. **Material and methods:** This descriptive observational study analyzed 41 patient observation sheets from the Municipal Clinical Hospital for Contagious Children in Chisinau, during the year 2022. **Results :** The age distribution within the studied group showed that preschool children accounted for 19 cases (46.3%), schoolchildren (aged 7-14 years) for 15 cases (36.7%), and teenagers (15-18 years) for 7 cases (17%). Boys constituted 56%, while girls - 44% of the total. The annual distribution of cases was relatively balanced. Clinical manifestations included fever in 40 children (97.2%), odynophagia in 37 (90.2%), nasal obstruction and nasal voice in 25 (61%), polyadenopathy in 33 (80.2%), hepatomegaly in 38 (92.7%), and splenomegaly in 22 (53.2%). Purulent tonsillitis was present in 3 cases (7.3%), while skin rash occurred in 4 cases (9.8%). Outpatient treatment with amoxicillin was initiated in 8 cases (19.5%). Hepatitis was diagnosed in 31 cases (75.6%). Ultrasonography examination revealed hepatosplenomegaly in 27 cases (65.8%) and mesadenitis in 3 cases (7.3%). Laboratory findings showed leukocytosis in 31 cases (75.6%), lymphomonocytosis in 33 cases (80.5%), and presence of atypical lymphocytes in 27 cases (65.8%), with elevated erythrocyte sedimentation rate (ESR) in all cases. Primary EBV infection was serologically confirmed in 19 cases (46.3%) and mixed infection with EBV and CMV in 7 cases (17%). The disease presented as average form in 8 patients (19.5%) and severe in 33 patients (80.5%). Patients showed improvement upon discharge, although hepatosplenomegaly persisted in 28% and hypertransaminasemia in 54% of cases. Treatment involved detoxification therapy, antibiotics, hepatoprotective agents, interferon, desensitizers, and vitamins. Corticosteroids were given to 27 patients (65.8%). The average hospital stay was 10 days. **Conclusions:** Infectious mononucleosis continues to pose a health challenge due to the absence of etiological treatment. Asymptomatic excretion of the virus contributes to the spread of the infection among children, despite its low contagiousness. Upon discharge, most cases still have cytolysis syndrome and hepatosplenomegaly, needing close outpatient care.

Keywords: Epstein Barr Virus, Infectious mononucleosis, Children

ASSESSING DISABILITY IN MULTIPLE SCLEROSIS PATIENTS

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Background: Multiple Sclerosis (MS) is a chronic neuro-inflammatory disease of the central nervous system and represents one of the main causes of neurological disability in young individuals. The disease onset and clinical course has a great inter-individual variability, therefore predicting MS's progression turns out to be quite challenging. **Objective:** To evaluate the demographic and clinical predictors for disability progression, as measured by the Expanded Disability Status Scale (EDSS), in a cohort of MS patients treated with interferon beta. **Material and methods:** We retrospectively analysed a cohort of 252 MS patients treated in the Neurology 1 Clinic of Emergency Clinical Country Hospital of Târgu Mureș based on demographic and clinical data. We used Kaplan Meier survival analysis to assess the moment of reaching an EDSS of 3.0 and 6.0. **Results :** The lot was composed of 86 (34.12%) male patients and 166 (65.87%) female patients. The mean age of the cohort was 45.5 years ± 12.02, with the mean age at diagnosis of 30.78 years ± 9, and the mean age of treatment initiation of 32.29 ± 9.34 years. At the beginning of the treatment, all 252 had a relapsing-remitting form (RR), while in 2023, 9.1% of the total patients progressed to the secondary-progressive (SP) form. The analysis of the moment of reaching an EDSS of 3.0 from the onset was 25 years [21.12; 28.82 95% CI] and 37 years [34.08; 39.91 95% CI] until they reached EDSS of 6.0. There were no differences based on gender and living environment (p-log-rank >0.05). **Conclusions:** Before the disease-modifying therapy era, MS patients would reach an EDSS of 6.0 in 10-15 years from the onset. The importance of early treatment initiation is reflected in a slower disability accumulation, emphasizing the concept of "optimal therapeutic window".

Keywords: Multiple Sclerosis,, Disability Evolution,, Expanded Disability Status Scale,, Relapses

ATOPIC DERMATITIS IN MEDICAL PROFESSIONALS

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Background: One in ten people will at some point in their lives have atopic dermatitis, also known as atopic eczema, which is a chronic inflammatory skin illness that comes and goes. Immune dysregulation, epidermal gene abnormalities, and environmental factors combine intricately to generate atopic dermatitis. It is well known that people who work in the medical field are more likely to be affected by this disease due to the increased amount of sanitizers used daily and medical gloves which contain latex. **Objective:** The main objective of this study is to observe if people who are in the medical field with atopic dermatitis are affected in performing their daily tasks and how it influents their well being. **Material and methods:** This research is a prospective study which was performed on 316 people through an online form addressed mainly to medical professionals who encountered one or more specific symptoms suggesting an outgoing skin condition. **Results :** Out of the 316 responders to my study who are in the medical field, 51,6% are affected by atopic dermatitis, revealing an existing correlation(p=0,01) between the prevalence of this disease,the aggravation of it and their profession . An important role in this pathology is played by the awareness of the aggravating factors, which in this study, were represented by increased stress and anxiety(p=0,003), a high number of the subjects reporting an aggravation in their inflammations and rashes during stressful situations work related. Another relevant finding in this study is represented by the number of people(p=0,008) who declared that their work abilities are highly affected by this skin condition, making it harder for them to perform daily tasks at the work place due to the pain the rash causes them by using detergents, hand sanitizers, soaps, and also the uncomfortable gloves wearing. **Conclusions:** This prospective study shows the existing correlation between people in health care and the prevalence and aggravation of atopic dermatitis, which affects the ability to perform various tasks. As previously shown, numerous health workers suffer of this skin condition and it is a way more common disease than is generally thought.

Keywords: atopic dermatitis, medical field, aggravation, stress

MATERNAL KNOWLEDGE RELATED TO BREASTFEEDING

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Background: Breast milk is a complex and unique substance, distinct from the lactation secretions of other species. Besides providing essential nutrients, it offers crucial protection during the newborn's adaptation process to the extraterrestrial environment. The components of breast milk not only directly combat pathogens but also stimulate the development of the newborn's immune sys-tem, strengthening its defense capabilities and reducing the risk of allergic conditions. **Objective:** The aim of the study was to assess the knowledge of mothers who have breastfed or are currently breastfeeding regarding breastfeeding and its benefits. Specifically, we aimed to explore the impact of the mothers' educational level at the time of breastfeeding on their understanding of the benefits for the infant, especially in terms of reducing obesity, fostering the emotional bond between mother and infant, promoting strong immune system development, ensuring good digestion, and soothing the in-fant. We also analyzed the relationship between the mother's background and the timing of introduc-ing solid foods. **Material and methods:** This study represents a cross-sectional survey conducted between January and February 2024, using a Google Forms questionnaire to assess mothers' knowledge. The questionnaire was distributed on social media platforms, with informed consent and under anonymity protection. It was completed by 1000 individuals. The collected data were analyzed using SPSS (Statistical Package for the Social Scienc-es). Data distribution was tested using the Chi-square test, with $p < 0.05$ considered statistically signifi-cant. **Results :** The study identified a statistically significant association between the level of education and the reduc-tion of obesity risk as a benefit of breastfeeding ($p < 0.0001$). Another statistically significant association was found between the mother's background and the timing of introducing solid foods ($p < 0.001$). However, no statistical significance was found between the level of education completed and the emotional bond created between mother and infant during breastfeeding ($p > 0.058$). Another non-significant association was detected between the completed level of education and breastfeeding as a factor in developing strong infant immunity ($p > 0.507$), ensuring good digestion ($p > 0.283$), and soothing the infant ($p > 0.52$). **Conclusions:** This study revealed that the mothers with university and postgraduate studies, are more informed about the benefits of breastfeeding, especially related to reducing infant obesity, compared to the mothers that have high school and post-high school studies. Similarly, the mothers from rural background have introduced solid foods earlier than the ones from urban background.

Keywords: breastfeeding, mother, benefit, obesity

BACTERIAL AND FUNGAL MIXED BIOFILMS

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Background: Biofilms, as communities of microbial cells embedded in an extracellular polymeric substance matrix, enable the exchange of genetic material and protect the cells against antimicrobial agents. **Objective:** To assess the influence of interspecies relations on the biofilm formation ability of medically important bacteria and fungi. **Material and methods:** Standard 0.5 McFarland inocula were prepared in saline for Candida albicans ATCC 90028, Candida krusei ATCC 6258, Candida parapsilosis ATCC 22019, Candida guilliermondii IC 184, Escherichia coli ATCC 25922, Pseudomonas aeruginosa ATCC 27853, Staphylococcus aureus MSSA ATCC 25923, S.aureus MRSA ATCC 43300 and Klebsiella pneumoniae ATCC 700603. Afterward, 50µl of inocula solution of one species as well as 50µl of inocula solution of a different species were introduced into a 96-well microtiter plate and mixed with 100µl of RPMI 2x growth medium. The microtiter plates were incubated at 35°C for 24 hours. The wells were stained with 1%, 3%, and 5% crystal violet and destained with 30% acetic acid. The absorbances were read by spectrophotometry at a wavelength of 620 nm. Mono-microbial biofilms served as controls. The formation of mixed biofilms was compared with the formation of mono-species biofilms (Δ-index). A Δ-index ≥ 1.25 stands for enhanced biofilm production, while a Δ-in ≤ 0.75 equals inhibition. **Results :** The biofilm formation ability of C. albicans was enhanced by E. coli (Δ-index 3.45-4.43), P. aeruginosa (Δ-index 4.14-4.58), MSSA (Δ-index 4.75-4.79) and MRSA (Δ-index 1.81-2.85). Additionally, C. krusei, C. parapsilosis and C. guilliermondii biofilm formation abilities were stimulated by E. coli (Δ-index 1.42-2.46; 1.29-2.92; 1.98-2.27), P. aeruginosa (Δ-index 2.04-2.44; 2.20-2.60; 2.27-2.50) and MSSA (Δ-index 2.04-2.44; 1.76-2.24; 2.70-2.85). E. coli

biofilm production was promoted by C. albicans (Δ-index 1.35-1.40). On the other hand, the ability of P. aeruginosa to produce biofilm was inhibited by E. coli (Δ-index 0.56-0.62), MRSA (Δ-index 0.64-0.74), and K. pneumoniae (Δ-index 0.26-0.51). Biofilms of MSSA decreased under the presence of E. coli (Δ-index 0.55-1.12), and K. pneumoniae (Δ-index 0.2-0.38). The MRSA biofilm formation was hindered by C. krusei (Δ-index 0.38-0.71), and K. pneumoniae (Δ-index 0.28-0.52). **Conclusions:** Interspecies relations generally favored Candida biofilm growth, while mostly reducing MRSA and MSSA biofilm development. Further studies are required to better understand the molecular mechanisms behind microbial interactions.

Keywords: Mixed biofilm, Candida, Staphylococcus

THE POTENTIAL AND CONSTRAINTS OF ARTIFICIAL INTELLIGENCE LARGE LANGUAGE MODELS IN GASTRIC CANCER INFORMATION

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Background: The use of the internet for health-related purposes is becoming increasingly common and the emergence of Large Language Models (LLM) may soon offer a new alternative for informing patients and their caregivers. However, while these new information resources may influence patient choices, their effectiveness in providing answers about symptoms and treatments is not yet fully investigated. **Objective:** To assess the completeness and accuracy of responses of three LLMs (ChatGPT-Open AI, Gemini-Google, and LLaMA-Meta) to English-language questions about gastric cancer. **Material and methods:** A scenario, plausible for most users, was applied to evaluate responses using a single general question about gastric cancer as input. Responses were rated against an evidence-based quality benchmark for completeness and accuracy following a predefined procedure. Scores from 0 to 10 were calculated based on the rates. **Results :** In the chosen scenario, completeness scores were 4.74 for ChatGPT, 3.95 for Gemini and 1.58 for LLaMA (mean score 3.42). The accuracy scores obtained by the three models were 6.11, 6.33 and 5.00 respectively (mean score 5.81). **Conclusions:** LLM performance was modest in the usual scenario. The investigation showed a slight superiority of Gemini compared to the other two models tested. The study suggests that in order to obtain more complete and accurate answers, patients should ask as specific questions as possible about each aspect of gastric cancer they are interested in. For safety reasons, the use of LLM for medical purposes should be complementary to medical consultation.

Keywords: Large Language Models, artificial intelligence, gastric cancer, completeness, accuracy

CLINICAL - SURGICAL

RISK FACTORS ASSOCIATED WITH LONG-TERM RESTENOSIS FOLLOWING CAROTID ENDARTERECTOMY

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Background: The latest recommendations of the ESVS recommend surgical treatment in patients presenting a symptomatic carotid artery stenosis of at least 50%, or of asymptomatic lesions >70%. Carotid artery restenosis following carotid endarterectomy (CEA) is one of the main complications involving this surgical procedure. This could lead to a de novo episode of stroke, or enhance the risk of recurrence. Among the most frequently involved risk factors associated with carotid restenosis include smoking, hypertension and female sex. On the other side, dual platelet therapy seems to prevent and reduce the degree of stenosis. **Objective:** The purpose of this study is to evaluate the association between blood pressure fluctuating values and the grade of obesity during carotid endarterectomy. **Material and methods:** This is a retrospective cohort study and included all patients over 18 years of age with a minimum of 70% carotid stenosis and surgical indications for CEA admitted to the Vascular Surgery Clinic, Emergency County Hospital of Targu Mures, Romania. We included 113 patients, dividing them in two groups: normal BMI (body mass index) and obesity (all three degrees of it). We measured 3 systolic blood pressures: before clamping, during the clamping and after. **Results :** No statistical difference has been found regarding the demographic data. Having grouped the patients in normal weight, overweight and obese, we registered a higher incdence of diabetus mellitus for the obese patients (p=0.02), respectively a higher incidence of chronic tobacco use for the same group (p=0.003). Regarding SBP before, during and after carotid endarterectomy, we have no difference between the groups. However, we observed a substantial reduction in SBP during carotid clamping (p<0.001), along with a higher occurrence of symptomatic cerebral hypoperfusion (p=0.001). **Conclusions:** Body mass index has a significant impact upon the grade of cerebral perfusion following the artery clamping during the carotid endarterectomy.

Keywords: carotid endarterectomy, obesity, carotid stenosis

NEURONAVIGATION AND AUGMENTED REALITY IN TRANSSPHENOIDAL PITUITARY MICRO ADENOMA SURGERY

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Background: A pituitary microadenoma is a small, usually benign tumor that develops in the pituitary gland. These adenomas are typically less than 10 millimeters in diameter but despite their small size, pituitary microadenomas can cause hormonal imbalances by overproducing certain pituitary hormones. Surgery is challenging due to the small size of the tumours and difficulty in properly finding and resecting the tumor **Objective:** The objective of this presentation is to highlight the novelty and effectiveness of intraoperative augmented reality in pituitary micro adenoma surgery **Material and methods:** A 54-year-old patient know with cardiac arrythmia, with acromegalic phenotype is diagnosed with an increased IGF-1 of 479 ng/ml. A pituitary MRI showed a left pituitary lesion of 3,5x2,2 mm suggestive of a microadenoma. Microscopic transsphenoidal surgery was performed at the Targu Mures Neurosurgery Department. The surgical technique involved the use of preoperative imaging (CT and MRI) coupled with a state of the art neuronavigation system capable of directly injecting 3D volumes in the surgical microscope **Results :** The use of intraoperative augmented reality allowed for a better understanding of the local anatomy and better approach to otherwise difficult to find microadenoma. Complete surgical resection of the tumour was macroscopically achieved, with an uneventful postoperative trajectory. The patient was discharged to home 4 days following surgery. Histopathology has confirmed the GH secreting nature of the microadenoma. Postoperatively the patient presented the remission of the cardiac arrythmia, with a significant reduction of IGF-1 to 235 ng/ml **Conclusions:** The addition of intraoperative augmented reality offers greater precision, and faster discovery of the microadenoma, providing significant assistance in order to perform a complete surgical resection of these challenging tumours

Keywords: PituitaryMicroadenoma, Neuronavigation, Augmentedreality, Advantages

THE EFFICACY OF LAPAROSCOPIC FOWLER-STEPHENS ORCHIOPEXY IN THE MANAGEMENT OF INTRA-ABDOMINAL TESTES: A CASE SERIES FROM THE PEDIATRIC SURGERY AND ORTHOPEDICS CLINIC OF TÂRGU MUREȘ, 2018-2023

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Background: Cryptorchidism, or undescended testes, is the most common congenital abnormality in male infants. This condition affects around 3% of full-term births and around 30% of premature boys. Most undescended testicles are palpable but do not fully descend into the scrotum. In 20% of the cases, the tests are non-palpable. One half of these are absent or atrophic while the other half are located intra-abdominal. Non-palpable intra-abdominal testes can lead to long-term complications like fertility problems, increased risk of cancer, torsion, hormonal imbalances, and psychological effects. In most cases of intra-abdominal testes traditional orchiopexy is unfeasible. The 2-Step Fowler Stephens laparoscopic orchiopexy (FSLO) is a surgical method consisting of two stages used in the treatment of intra-abdominal testes. In the first stage, the main testicular vessels are cut using laparoscopy. The collateral circulation of the ductus deferens starts to develop. The second stage takes place after several months involving the mobilization and fixation of the testes into the scrotum. **Objective:** This study focuses on the efficacy of the 2-Step laparoscopic Fowler-Stephens orchiopexy in the management of intra-abdominal testes and highlights the importance of its treatment. **Material and methods:** We examined the clinical and paraclinical results of male patients diagnosed with cryptorchidism who were treated at the Emergency Clinical County Hospital of Târgu Mureș in the Pediatric Surgery and Orthopedics Department from 2018 to 2023. **Results :** The retrospective analysis of data from 2018 to 2023 presented a case series of 7 patients with high intra-abdominal testes treated with FSLO. The average age of the patients is 3 years, the oldest being 6 years old. The mean duration between the first and the second intervention was 10 ± 3 months. The main associated anomalies were urological, while also Down syndrome and atrial septal defect were encountered. Most cases involved unilateral left intra-abdominal testes, but two cases of right and one bilateral case were also managed. The average duration of hospitalization per intervention was about 3 days. All the orchiopexies were successfully done. No testicular atrophy or recurrences were noted. **Conclusions:** 2-Step FSLO seems to be an effective approach in managing high intra-abdominal testes. The procedures showed no case of recurrence and have been performed successfully in both unilateral and bilateral cases. Further research is needed due to the lack of long-term data and the small sample size. Additionally, long-term follow-up is necessary to monitor possible complications like fertility problems or malignancies.

Keywords: orchiopexy, cryptorchidism, laparoscopy

IMPACT OF THE DIALYSIS STATUS ON THE LONG TERM AVF DYSFUNCTION

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Background: End-stage kidney disease (ESKD) is defined as irreversible decline in a person's own kidney function, which implies the necessity of renal replacement therapy. Arteriovenous fistulae (AVFs) represent the gold standard in terms of vascular access for hemodialysis. With the increasing of number of patients requiring this procedure, it is imperious to preserve the patency of the AVFs as long as possible, granting a qvasi-normal quality of life for the end-stage renal disease patients. **Objective:** The aim of this study is to analyze how the dialysis status influences the patency of fistulas, according to the moment of initiation of the dialysis. **Material and methods:** This is a retrospective comparative descriptive study, conducted in the Vascular Surgery Clinic, Emergency County Hospital of Targu Mures, Romania, involving 109 patients with ESKD. Out of these, 47 patients already were performing dialysis on a CVC (central venous catheter), while 62 were not following any renal replacement therapy. We enrolled the patients in 2 groups, based on this status. Moreover, we excluded from the study those whith a history of AVF. **Results :** We did not find any significant difference between the two groups of patients in terms of demographic data, type of AVF performed, pre-operative vascular diameters, or systemic inflammatory markers. However, we observed a higher incidence of AVF failure in patients on CVC dialysis at the time of AVF creation (29.78% vs 8.06% p=0.003). This result was also evident in the Kaplan-Meier curve (p=0.007). In addition, according to cox-regression, pre-dialysis patients have a low rate of long-term AVF

dysfunction (HR=0.270, p=0.012). This association is independent of demographic data, cardiovascular comorbidities, and pre-operative mapping. (HR=0.232, p=0.007, adjusted for age and gender, respectively HR=0.172, p=0.004 adjusted for age, gender, arterial hypertension, diabetus mellitus, peripheral artery disease and pre-operative vascular diameters). **Conclusions:** Our study suggests that, for a prolonged vascular access patency over time, patients should be prepared for dialysis by performing a prophilactic AVF.

Keywords: arteriovenous fistula, end-stage kidney disease, hemodialysis

POSTOPERATIVE COMPLICATIONS OF ENDOSCOPIC VERSUS OPEN SAPHENECTOMY FOR AORTO-CORONARY BYPASS SURGERY: A COMPARATIVE STUDY

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Background: Endoscopic saphenectomy, a minimally invasive procedure used to harvest vein grafts in coronary artery bypass surgery, is an alternative to the traditional open saphenectomy technique. Research indicates that endoscopic vein harvesting is associated with a lower incidence of wound complications, offering potential benefits for postoperative recovery. **Objective:** Our aim was to compare the postoperative complications of endoscopic saphenectomy with those of open saphenectomy. We also compared the major cardiovascular risk factors and diseases from the patient's personal medical histories. **Material and methods:** The study cohort included 42 patients (age 64.5 ± 7 years, 28 men, 14 women) who underwent the endoscopic procedure and 50 patients (age 66.5 ± 7 years, 39 men, 11 women) who underwent open saphenectomy, all indicated for coronary artery bypass grafting. Statistical analysis was performed using IBM SPSS 25, with a p-value of < 0.05 considered statistically significant. **Results :** In our analysis of postoperative complications following endoscopic vs. classic saphenectomy, we assessed 11 complications and identified significant differences in 7. Suffusions and ecchymoses were more common in the endoscopic group, whereas necrosis, lymphedema, tegumentary diastasis, paresthesia, and soft tissue inflammation were more frequent in the classic saphenectomy group. From the patients' personal medical history, it is notable, that arterial hypertension, atrial fibrillation, and varicose veins were more common in the classic saphenectomy group. No significant differences were observed in other diseases or major cardiovascular risk factors between the groups. **Conclusions:** The study shows that endoscopic saphenectomy causes fewer postoperative complications such as necrosis, lymphoedema, tegumentary diastases, paraesthesia and soft tissue inflammation compared to classic saphenectomy. The more frequent occurrence of certain pathologies in the medical history of patients who underwent classic saphenectomy could influence the occurrence of complications; however, this assertion requires further investigation. These results underline the advantages of endoscopic saphenectomy in terms of reducing postoperative complications and emphasize its superiority in improving patient recovery.

Keywords: Endoscopic Saphenectomy, Open Saphenectomy, Myocardial revascularization, venous graft

BELOW-THE-KNEE ANGIOPLASTY AND STENTING IN CHRONIC LIMB THREATENING ISCHEMIA PATIENTS: LONG-TERM AMPUTATION RISK

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Background: Chronic Limb Threatening Ischemia (CLTI) stemming from atherosclerotic disease continues to pose a substantial challenge, leading to frequent hospitalizations and significant rates of limb loss and mortality, especially in diabetic individuals. Many of these patients exhibit widespread arterial involvement, presenting vascular surgeons with ongoing difficulties in managing lesions within the crural vessels. The advanced phase of peripheral arterial disease culminating in CLTI is marked by persistent rest pain and tissue necrosis. This condition severely compromises quality of life and is linked to elevated rates of morbidity and mortality. **Objective:** The aim of this study is to assess the differences between balloon angioplasty and stenting in patients with Chronic Limb Threatening Ischemia (CLTI) regarding the risk of major amputation. **Material and methods:** We enrolled 97 patients from our database in the Vascular Surgery Clinic, divided in two groups: those who underwent balloon angioplasty and those chosen for stenting for the below-the-knee arteries (56 for the balloon angioplasty, respectively 41 through stenting). **Results :** As expected, for the IV stage (Leriche-Fontaine classification), we

encountered more balloon angioplasties than stentings (19.51% vs 46.42%, p=0.006). Regarding the amputation rate, the incidence was significantly higher in the group with ballon angioplasty (21.42% vs 4.87%; p=0.022). For further statistical relevance, we executed the Kaplan-Meier curve, finding out once again that the amputation rate was higher in the balloon group (p=0.03). Finally, we conducted a cox-regression and found that single balloon angioplasty is associated with a risk of amputation (HR 4.85, p=0.04), independent of common cardiovascular risk factors. **Conclusions:** Stent angioplasty could represent the better option for patients with below-the-knee atherosclerotic lesions, especially for those with CLI.

Keywords: critical limb ischemia, percutaneous translumnal angioplasty, amputation

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SPHENOORBITAL MENINGIOMAS: DO TRADITIONAL TRANSCRANIAL APPROACHES HOLD THEIR GROUND AGAINST MINIMALLY INVASIVE STRATEGIES? LITERATURE REVIEW WITH ILLUSTRATIVE CASE

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Background: Sphenoorbital meningiomas (SOMs) represent a relatively rare tumor group with complex anatomical features and considerable morbidity for the patient. Along the decades, numerous approaches have been refined in order to ensure maximal resection and preservation of the structures comprising the intricate anatomy of the orbit. **Objective:** The aim of this paper is to evaluate the significance of classical transcranial corridors considering the variety of other less invasive approaches to this pathology. **Material and methods:** A search was performed with all possible combinations of MESH terms such as "Sphenoorbital," "Meningioma", "Transcranial", "Endoscopic Transorbital" using acknowledged medical research databases (Pubmed, ScienceDirect). Studies in English providing insight into the effectiveness of transcranial and endoscopic approaches to SOMs were selected and analyzed. Secondary and tertiary literature sources were additionaly consulted. The case of a patient with sphenoorbital meningioma and reactive hyperostosis referred to and operated in the neurosurgery department of the Emergency County Hospital Târgu Mureş was also included. **Results :** Despite the implementation of endoscopic resection techniques, transcranial approaches such as the pterional one remain a landmark in the field of sphenoorbital meningiomas. They ensure excellent exposure of the tumor when arising from the lateral and middle sphenoid wing. Moreover, reactive hyperostosis of the surrounding bone and lateral compression of the optic canal can be tackled satisfactorily by approaching the meningioma from the pterion. However, problems occur when the sphenoorbital meningioma originates from the clinoidal process, compressing the optic canal medially and/or inferiorly. In this situations, other approaches should be adopted. **Conclusions:** Transcranial approaches of sphenoorbital meningiomas have yet to lose their importance, despite the existence of other surgical corridors associated with better esthetic outcomes. A point to be kept in mind is that improvement of symptoms and overall postoperative evolution of the patient are associated not only with the chosen approach, but also with the extent of resection, degree of optic canal compression and extension into the periorbit.

Keywords: sphenoorbital meningioma, transcranial, optic canal, hyperostosis

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"ASSESSING THE QUALITY OF GERMAN-LANGUAGE ONLINE INFORMATION ON GASTRIC CANCER: CREDIBILITY, COMPLETENESS, AND ACCURACY"

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Background: Gastric cancer is a matter of great concern in terms of global health. It stands as one of the primary causes of cancer-related fatalities worldwide, exhibiting varying incidence rates among different regions and populations. Given the growing dependence on online sources for health-related information, the credibility, completeness, and accuracy of the available information on the internet pertaining to gastric cancer assume utmost importance in educating and empowering the general population. **Objective:** The objective of this study was to evaluate the credibility, completeness, and accuracy of online information available in German about gastric cancer. The association between credibility and Google ranking, along with completeness and accuracy was investigated. **Material and methods:** An examination of 25 German websites was conducted in a cross-sectional

study, selected based on predetermined criteria. The credibility of these websites was assessed using established quality assessments. A specialized benchmark, developed with input from experts, was used to evaluate completeness and accuracy. Two evaluators independently reviewed and rated the medical content on the websites, assigning scores from 0 to 10 for credibility, completeness, and accuracy. Correlation analyses were conducted to explore potential relationships between credibility and Google ranking on the one hand, and completeness and accuracy on the other hand. The Pearson or Spearman test was employed for this purpose. **Results :** The mean completeness score was 7.3; the mean accuracy score was 5.6 and the mean credibility score was 6.0. The correlation tests yielded the following results: credibility-completeness r= 0.0715 (p=0.7338); Credibility-accuracy rho=-0.3509 (p=0.0855) ; Google Rank-completeness rho= 0.3307 (p=0.1064); Google Rank-accuracy rho= 0.276 (p=0.1817). **Conclusions:** Based on the provided mean scores,the German-language online information on Gastric cancer demonstrates a moderate level across all evaluated criteria: credibility, completeness, and accuracy. Neither credibility nor Google ranking was correlated significantly with the information quality scores suggesting that the potential of these user friendly markers of information quality are nost useful in identifying German language websites with more complete or accurate information about gastric cancer

Keywords: Gastric cancer, Online information, Online health information

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MANAGEMENT OF ENDOMETRIAL POLYP AND CONCURRENT GYNECOLOGICAL PATHOLOGIES: A CLINICAL INSIGHT

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Background: The management of endometrial polyps and other uterine conditions such as adenomyosis, pelvic inflammatory disease, and suspected external endometriosis presents a clinical challenge, particularly in perimenopausal women experiencing abnormal uterine bleeding. **Objective:** This case report aims to illustrate a comprehensive approach to diagnosing and treating complex gynecological conditions in a 49-year-old female patient, highlighting the effectiveness of hysteroscopic polypectomy combined with uterine curettage. **Material and methods:** A 49-year-old patient was admitted to the hospital from January 21, 2024, to January 23, 2024, for scheduled surgery due to complaints of menorrhagia, a history of regular menstrual cycles with heavy flow lasting 5 days, and a medical history including nasal polypectomy and uterine curettage in 2017. Pre-admission medication history included contraceptive use and a noted allergy to Ibuprofen. The diagnostic process involved clinical examination and ultrasound imaging. The operative procedure performed on January 22, 2024, included hysteroscopic polypectomy and uterine curettage under spinal anesthesia. **Results :** The surgical intervention led to the resection of two endometrial polyps and systematic curettage of the uterine cavity. Histopathological examination confirmed the presence of hyperplastic endometrial polyp fragments without atypia. The postoperative period was uneventful, with the patient receiving antibioprophylaxis, anticoagulant, anti-inflammatory, and analgesic treatment, demonstrating good recovery without complications. **Conclusions:** Hysteroscopic polypectomy combined with uterine curettage offers an effective treatment option for women with abnormal uterine bleeding due to endometrial polyps. This case highlights the significance of personalized patient care, incorporating surgical intervention, histopathological examination, and postoperative management to achieve optimal outcomes.

Keywords: Endometrial polyp, Adenomyosis, Hysteroscopic polypectomy, Pelvic inflammatory disease

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EMERGENCY MANAGEMENT AND RECOVERY OF SEVERE GYNECOLOGIC-ORIGIN PERITONITIS WITH SECONDARY APPENDIX INVOLVEMENT: A CASE STUDY

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Background: We report the case of a 42-year-old patient presenting with acute symptoms of fever and severe abdominal pain to our hospital. Despite having an intrauterine device (IUD) but lacking regular gynecologic follow-ups, clinical examination revealed signs of peritonitis. Ultrasound diagnostics identified bilateral pyosalpinx and free fluid in the peritoneal cavity. The patient's history included two vaginal deliveries and a cesarean section performed in 2015. **Objective:** The primary objective was the immediate treatment of this life-threatening

condition. The therapeutic regimen included broad-spectrum antibiotics (ceftriaxone, gentamicin, and metronidazole administered intravenously thrice daily), along with anticoagulant, anti-inflammatory, and analgesic medications. **Material and methods:** This case study is based on an analysis of medical records and a direct interview with the patient. **Results :** Within 24 hours, surgical intervention was necessary, conducted via Pfannenstiel laparotomy. The surgery revealed purulent fluid in the peritoneal cavity, and the pelvis was obstructed by extensive adhesions involving the small bowel, caecum, appendix, omentum, and sigma. These adhesions had encapsulated the pelvic space, where an inflamed uterus of enlarged, soft consistency and both annexes, transformed into tubo-ovarian abscesses, were found. The surgical procedure included adhesiolysis, removal of both annexes, and the uterus due to evident endometritis, and the appendix due to signs of inflammation and necrosis. Approximately 500ml of purulent fluid was evacuated for bacteriological examination. The operation emphasized meticulous removal of infected tissues, ensuring hemostasis, and was followed by thorough lavage and drainage. Postoperatively, the continuation of the antibiotic regimen and supportive medications facilitated early mobilization. Drainage was removed after 48 hours, and the patient's recovery was closely monitored through laboratory tests, which showed a steady return to normal inflammatory markers, underscoring the intervention's success in eliminating infection and promoting healing. **Conclusions:** This case highlights the critical need for a multidisciplinary approach in managing complex gynecological conditions, particularly those involving extensive pelvic adhesions and infections. It underscores the utility of combining general surgical and gynecological expertise in treatment. Importantly, this case serves as a reminder of the complications that can arise from neglected IUDs, including endometritis, bilateral pyosalpinx, peritonitis, and secondary appendiceal involvement. It underlines the vital importance of routine gynecologic consultations, especially for individuals with IUDs, to prevent such severe outcomes.

Keywords: Acute pelvic infection, Intrauterine device (IUD) complications, Gynecological emergency, Bilateral annexectomy

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THE PREDICTIVE ROLE OF INTERLEUKIN-6 (IL-6) IN LONG-TERM FAILURE OF ARTERIOVENOUS FISTULA (AVF)

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Background: Arteriovenous fistula (AVF) is the first choice of vascular access for dialysis in patients with end-stage kidney disease (ESKD). However, the primary patency of AVF at one year is under 70% due to several risk factors, comorbidities, and systemic inflammations. **Objective:** This study aims to analyze the role of interleukin-6 (IL-6) on the long-term primary patency of AVF following dialysis initiation. **Material and methods:** We conducted a retrospective observational study in which we initially enrolled 91 patients with ESKD admitted to the Vascular Surgery Department, Emergency County Hospital of Targu Mures between January 2020 and July 2023. The primary endpoint was AVF failure, defined as the impossibility of performing a chronic dialysis session due to severe restenosis or AVF thrombosis. After follow-up, we categorized patients into two groups based on their AVF status: "Functional AVF" for those with a permeable AVF and "AVF Failure" for those with vascular access dysfunction. **Results :** Patients with AVF failure had a higher prevalence of diabetes mellitus (p=0.019) and active smoking (p=0.012), as well as a higher baseline value of IL-6 (9.46 vs. 5.91, p<0.001). At ROC analysis, we identify for IL-6 an optimal cut-off value of 7.08 (76.5% Sensitivity and 79.7% Specificity), with an AUC of 0.814. In Kaplan-Meier survival analyses, patients in the highest tertile (T3) of IL-6 had a higher incidence of AVF failure than those in tertiles 1 and 2 (p<0.001). Moreover, we found that patients with higher baseline values of IL-6 had a two-fold increased risk of AVF failure during the follow-up period, regardless of their age or sex (HR: 2.18, p<0.001), their cardiovascular risk factors (HR: 1.96, p=0.001), and their dialysis status at the time of the index events (HR: 2.08, p=0.001). **Conclusions:** In conclusion, high preoperative values of IL-6 are positively associated with long-term AVF failure. The prognostic role of the biomarker was independent of age, sex, cardiovascular risk factors, and dialysis status at the time of the index events.

Keywords: interleukin-6, arteriovenous fistula, primary patency, vascular surgery

LASER TRABECULOPLASTY: A POTENTIAL ALTERNATIVE TO MEDICATION IN GLAUCOMA TREATMENT-A LITERATURE REVIEW

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Background: Glaucoma causes global blindness and impaired vision, with treatment aiming to reduce intraocular pressure (IOP) to preserve the visual field. Selective laser trabeculoplasty (SLT) is a non-invasive laser procedure improving eye fluid drainage. **Objective:** The aim of this review is to evaluate the potential benefits of SLT in comparison with current medication. This therapy can provide longer-lasting reduction in IOP and may be more cost-effective in the long term. **Material and methods:** This review selected articles included in the PubMed database that compared laser trabeculoplasty and medication from different perspectives: therapeutical and financial. The phrases used in the search were ,,laser trabeculoplasty" ,,medication" and ,,comparison". Included articles were mainly randomized clinical trials (RCT) but there was one cross-sectional and one retrospective study. The clinical trials included evaluated therapeutical success, which was defined by lowering the IOP (and therefore the risk of needing medication or even trabeculectomy) or by health-related quality of life. Studies comparing different types of laser trabeculoplasty were not included. Bias risk was not assessed and data were extracted using a standardized abstraction form. **Results :** A total of 1435 patients were identified in 13 studies, of which 2 are still ongoing. Gazzard et al (2023) observed a significant reduction in disease progression for SLT: 26.8% of patients treated with medication exhibited disease progression, compared to 19.6% of patients treated with SLT (p=0.006). Trabeculectomy was required in 32 eyes in the eye drops group, compared to 13 eyes in the SLT group (p<0.001). Also, SLT proved to be more cost-effective: patients ended up saving about 500£ in a three-year span. Lee et al (2014) also concluded that patients treated with SLT had a lower IOP (p=0.03) and required fewer medications. Ang et al (2020) reported a significant improvement in the patient's quality of life regarding social well-being. On the other side, Narayanaswamy et al (2015) reported complete success in fewer eyes treated with SLT (60%) compared to prostaglandin analog (PGA-84%), with statistical significance (p=0.008). Also, additional medications were required in 22% of the patients treated with SLT, compared to 8% treated with PGA (p=0.05). **Conclusions:** Although some studies prove otherwise, in most of the studies laser trabeculoplasty appears to provide better outcomes for patients with glaucoma, both from a therapeutical and a financial standpoint. However, each study had a different definition of therapeutical success, which made it difficult to compare the results and further investigation is still needed.

Keywords: laser trabeculoplasty, glaucoma, medication, intraocular pressure

“ELEVATED LEUKOCYTE GLYCEMIC INDEX IS ASSOCIATED WITH LONG-TERM AMPUTATION RISK FOLLOWING PERCUTANEOUS TRANSLUMINAL ANGIOPLASTY IN CRITICAL LIMB ISCHEMIA PATIENTS”

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Background: Peripheral artery disease represents a manifestation of a systemic disorder, namely atheroschlerosis, like coronary artery disease and cerebrovascular disease. The symptomatology varies from a mild discomfort that comes with effort, to rest pain and gangrene. The more pronounced the symptomatology, the higher the risk of negative outcomes, such as amputation and death. Leucocyte glycemic index (LGI) represents a novel inflammatory biomarker with a strong predictive role in various pathologies, ranging from tumors to cardiovascular diseases. **Objective:** The objective of this study was to how the LGI influences the outcome in patients with CLTI that underwent percutaneous transluminal angioplasty (PTA) and the rate of amputation following this intervention. **Material and methods:** This is an analytical, observational, and retrospective study. The angiographic patterns of PAD were analyzed for arterial axes of the patients in the affected limb. We included 97 patients with peripheral artery disease that underwent a PTA, from the Vascular Surgery Clinic, Targu Mures **Results :** Even though there was no statistical difference regarding the demographic data of these patients, LGI was significantly higher in the group that required an amputation following the PTA (1.77 vs 1.14, p=0.001). Moreover, at the ROC analysis, we obtained an area under the curve (AUC) of 0.774 (p<0.001). Furthermore, for

the Kaplan-Meier graph we extrapolated that patients in the 3rd tertile had a higher incidence of amputation when compared with those in the 1st tertile (p=0.018). Finally, we performed a cox regression analysis: in the unajusted model we obtained an HR of 2.10 (p<0.001), while in the 2nd model (adjusted for age and gender) and the 3rd (adjusted for age, gender, tobacco use, diabetus mellitus, stroke) we obtained an HR 1.94 (p=0.03) and HR=2.19 (p=0.001) respectively. **Conclusions:** Higher baseline value of LGI is associated with risk in patients with CLTI following the endovascular revascularization, independently of age, sex and ussual cardiovascular risc factors.

Keywords: percutaneous transluminal angioplasty, leucocyte glycemic index, critical limb threatening ischemia

LAPAROSCOPIC EXTRAPERITONEAL DRAINAGE: AN ALTERNATIVE APPROACH FOR COMPLICATED PSOAS ABSCESS

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Background: A psoas abscess presents a rare yet potentially severe medical condition, fraught with risks of neurological impairment, septicemia, and even mortality. This pathology often arises from the hematogenous spread of infection or contiguous extension from neighboring anatomical structures, such as the spine or genitourinary system. Early recognition and intervention are crucial to mitigate the consequences associated with this clinical entity. **Objective:** This presentation aims to explore the diagnostic and therapeutic strategies employed in managing psoas abscess, with a focus on laparoscopic extraperitoneal evacuation as the primary intervention. Additionally, the discussion encompasses the clinical outcomes and potential benefits of laparoscopic drainage, emphasizing its advantages in terms of reduced invasiveness, faster recovery, and optimal patient outcomes. **Material and methods:** We present a 36-year-old female with a psoas abscess and osteodiscitis. MRI revealed significant spinal pathology at vertebral levels L1 and L2, indicating potential involvement of adjacent structures, such as the psoas muscle. These findings confirmed the diagnosis and informed the selection of appropriate therapeutic interventions. During the laparoscopic procedure, the patient was positioned in the left lateral decubitus position. A vertical incision was made in the right flank, and meticulous dissection of the muscular planes was performed to access the retroperitoneal space. Careful attention was paid to avoid injury to surrounding structures, including the right iliac artery and ureter. Using visual guidance, the approximately 10x7 cm abscess within the psoas muscle was identified and punctured, releasing approximately 300 ml of purulent fluid. Thorough evacuation of the abscess contents was followed by meticulous debridement of necrotic tissue. The abscess cavity was then irrigated with saline solution, and double drainage tubes were inserted to facilitate continuous drainage and prevent re-accumulation of fluid. **Results :** The approach involving an incision in the right flank with dissection of the muscular planes enabled successful evacuation of purulent fluid from the abscess and thorough debridement and irrigation of the abscess cavity. This intervention effectively addressed the patient's condition, leading to symptom resolution and promoting recovery. **Conclusions:** The alternative approach of accessing retroperitoneal abscesses by making an incision in the right flank with dissection of the muscular planes offers a viable option to traditional methods. By minimizing the risk of peritoneal contamination, this technique may contribute to improved patient outcomes and reduced morbidity.

Keywords: Laparoscopic extraperitoneal drainage, psoas muscle abscess, optimal patient outcomes

ASSESSMENT OF COMPLICATIONS IN ABDOMINAL INCISIONAL HERNIA REPAIR: A FIVE-YEAR STUDY

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Background: Surgical repair of abdominal incisional hernia represents 2-8% of global abdominal surgery and 2-11% of general surgery procedures. Different studies state the rate of incisional abdominal hernia between 12-48% at 10 years, 80% of which will be operated, with a postoperative morbidity of 4-33% depending on the chosen repair procedure. **Objective:** This study aims to assess immediate and later complications in abdominal incisional hernia repair, comparing open tisular and prosthetic procedures, and laparoscopic procedures. Objectives include evaluating mortality, recurrence rates, and overall outcomes in 463 patients over five years, contributing to optimal surgical approaches. **Material and methods:** Immediate and later postoperative complications and results of

abdominal incisional hernia repair procedures were analyzed in 463 patients operated in the Vth Surgical Clinic Cluj-Napoca over a period of five years from 2017 to 2022, with a minimum follow-up of 24 months. During this time there were 287 operated men (62%) and 176 females (38%), mean age 64 years old. **Results :** There were 97 open procedures (sutures of abdominal wall defects) performed, 345 open procedures with prosthetic material and 21 laparoscopic procedures with prosthetic material for 343 midline incisional hernias and 120 other abdominal incisional hernias. Mortality rate during hospitalization was 0.86%. The overall rate of complications was 27% (125 patients): seroma (7.1%), superficial abscess (4.5%), deep necrotizing suppuration (1.3%), hematoma (4.1%), wound dehiscence (2.6%), bowel injury (1.1%), medical complications (8%). Recurrence rate was 10.6%. **Conclusions:** Surgical repair of abdominal incisional hernia is burdened by a high rate of complications. There is no consensus on the optimal technique. Open surgical repair with prosthetic material is associated with lower rates of recurrence. Laparoscopic surgery has similar results in terms of recurrence, decreased length of hospital stay and overall complications, but increased intestinal lesions.

Keywords: abdominal incisional hernia, surgical repair, abdominal surgery, complications

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COMPARATIVE RESULTS OF HIP ARTHROPLASTIES WITH CEMENTED VERSUS CEMENTLESS PROTHESES

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Background: Total hip arthroplasty (THA) is a surgical procedure in which the damaged hip joint is replaced by a prothesis. It is one of the most common elective surgical interventions, both due to its high success rate, as well as the ever increasing number of patients who need this procedure. Most commonly, the underlying pathology is hip ostheoarthritis. **Objective:** In this study, the aim was to compare the results of the two main types of hip prothesis, cemented and cementless, focusing on postoperative pain and bleeding. **Material and methods:** We studied the files of 56 patients who underwent THA at the Orthopaedics and Traumatology clinic of the Clinical County Hospital Mures, Targu Mures, Romania, from January 2021 to November 2023. 26 of them received cemented prothesis, while 30 received cementless prothesis. Patients with incomplete data were excluded. Results where $p<0.05$ were considered significant. **Results :** In this study, it was found that cemented protheses are preferred for older patients (median 76yo, compared to 67yo for cementless prothesis, $p<0.0001$). Postoperative drainage was found to be less for the cemented protheses (mean of 451ml, compared to 601ml for cementless prothesis, $p=0.03$). The average hemoglobin and hematocrit were found to be lower in patients who received cemented prothesis (12,66g/dl and 38,02%) than in those who received a cementless prothesis (13,97g/dl and 41,84%), with p values of 0.02 and 0.002 respectively. It was also statistically significant that patients who received a cemented prothesis tended to also receive tranexamic acid (77%), a drug used intraoperatively to prevent bleeding, as opposed to those who received a cementless prothesis (23%). Regarding postoperative pain, significant results ($p=0.04$) were found one week postoperatively, when patients with cementless protheses reported pain levels that were lower (6/10) than those with cemented protheses (7/10). **Conclusions:** It can be concluded that cemented prothesis are preffered for older patients. Patients who receive cementless prothesis tend to have more drainage than those who receive cemented prothesis, potentially due to them having a higher level of both hemoglobin and hematocrit to begin with. This study can serve as a starting point for larger studies to compare the two main types of hip prothesis.

Keywords: Total Hip Arthroplasty, Orthopaedics, Traumatology

UNUSUAL SYSTEMIC COMPLICATIONS AFTER COLORECTAL SURGERY

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Background: A 67-year-old male patient, presented to our department with fever, perianal pains, and partial paraparesis. The patient underwent rectal resection a year ago with a low colorectal anastomosis. After the surgery, he followed radiochemotherapy with a good immediate course. Two months prior to admission, routine imaging investigations (MRI) revealed an abscess situated between the rectum and sacrum bone, approximately 6-7 cm in diameter, communicating with the anorectal cavity. Initially expected to drain through the rectal fistula, the abscess instead increased to 10 cm, accompanied by mild paraparesis signs. Upon admission, we performed a

median laparotomy, opening the presacral collection, and excluded the fistula through a Hartmann I procedure **Objective:** On the third postoperative day, the patient developed signs of parotiditis virus reactivation, presenting with parotiditis, pancreatitis, and orchiepididymitis, aggravating the paraparesis. **Material and methods:** Upon admission, we performed a median laparotomy, opening the presacral collection, and excluded the fistula through a Hartmann I procedure.Two months prior to admission, routine imaging investigations (MRI) revealed an abscess.The patient retained paraparesis, as revealed by electromyography indicating severe polyneuropathy. **Results :** The local evolution of the abscess was positive, and the effects of the parotiditis virus were reversible. However, the patient retained paraparesis, as revealed by electromyography indicating severe polyneuropathy. **Conclusions:** Systemic complications following oncological surgeries followed by radiochemotherapy are very rare. However, if they occur, they may lead to a significantly poor patient outcome.

Keywords: Colorectal surgery, Parotiditis, Paraparesis

FACIAL RECONSTRUCTION FOLLOWING BASAL CELL CARCINOMA ABLATION

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Background: The reconstruction of the post-cancerous lesions has multiple methods to choose from. Every patient procedure is tailored for him based on size and area of the lesion. The Basal cell carcinoma (BCC) is the most common neoplastic disease of the face. Risk factors are the male gender and an age over 50 years. However, in recent years there has been an increase in the number of female patients. The etiology can be attributed to the long exposure to ultraviolet rays, the light skin and hair color. **Objective:** This study focuses on the different techniques used in the reconstruction of the face after BCC ablation. We look at the success rate of the complete or incomplete excision and recurrence of the tumor. Also compare the BCC type, size and invasion thickness with risk factors like gender and sun. **Material and methods:** This retrospective study compares 109 patients presented to the Plastic-, reconstructive- and micro- surgery department of the County Emergency Clinical Hospital of Targu Mures. The time frame of the study is between 01.01.2022-01.01.2023. The inclusion criteria consist of patients above 18 years and diagnosed with a BCC located on the face. **Results :** Contrary to expectations, the occurrence rate in males was 49% and in females 51%, and nodular or mixed types of BCC were also equally distributed. 90% of patients were above 50 years of age, with 41% reporting regular sun exposure. In tumors larger than 30mm, 72% mentioned regular sun exposure. In tumors smaller than 30mm, only 33% of patients mentioned a regular sun exposure. Excision success rates were consistent at 70-80% regardless of tumor size. Tumors were most located on the nose (43%), followed by the eyelid (18%) and temporal region (18%). Simple suture, split skin graft, full skin graft, and local flaps were the primary techniques used. 8% of patients experienced tumor recurrence. Among those requiring reexcision due to incomplete tumor removal, the recurrence rate stood at 18%. Post-surgical, 95% showed favorable outcomes, as determined by the surgeon's professional assessment, which considered factors like suture tightness, local inflammatory signs, and ecchymosis extent. 80% underwent successful excision and reconstruction without further intervention. **Conclusions:** Most of the patients diagnosed with BCC in our clinic had a favorable prognosis after the reconstruction. The data proofs that the sun has an impact on the size of the tumor. BCC rarely present a metastatic behavior and if correctly removed show a lower recurrence rate.

Keywords: Basal cell carcinoma, facial reconstruction, surgical techniques, sun exposure

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THE ROLE OF OSTEOSYNTHESIS WITH CENTRO-MEDULLARY NAIL IN FRACTURES OF THE PROXIMAL FEMUR

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Background: We are well aware that pertrochanteric fractures are common among people over the age of 60. They can be associated with various pathologies or occur following minor accidents. Young patients may present this type of fracture as a result of major trauma. **Objective:** To analyse the frequency of pertrochanteric fractures among the population in 2021, as well as to study the incidence of this type of fracture by age group and to evaluate the type of implant chosen by the orthopaedic surgeon according to the particularities of each patient. **Material and methods:** This is a retrospective study including 132 patients who suffered a pertrochanteric fracture

and who required hospitalization at the Orthopedics Traumatology Department I of the Emergency Clinical County Hospital Târgu Mureș between 01.01.2021 and 31.12.2021. In order to perform this study, we used the necessary data from the following sources: clinical observation reports of the Orthopaedics and Traumatology Department, the mandatory protocols and the online database of the department to obtain the imagistic investigations. We used the following inclusion criteria patients over 18 years old and a diagnosis of pertrochanteric fracture. Patients were divided into 2 groups: under 60 years old and over 60 years old. Persons under 18 years old were excluded. **Results :** The study included 132 patients, of which 45.5% (60 patients) were from urban areas and 54.5% (72 patients) from rural areas. In terms of age, 53 patients (40.2%) were male and 79 patients (59.8%) were female. Following imagistic investigations, especially radiography, we were able to identify the type of fracture according to the AO classification. As a result, 6.8% (9 patients) were classified as grade I, 3.8% (5 patients) as grade II, 3.8% (5 patients) as grade III, 85.6% (113 patients) as grade IV. Following imagistic investigations, AO classification for 61,4%(81 patients) the decision was made to perform static distal bracing, for 24,2%(32 patients) the decision was made to perform dynamic distal bracing, for 13,6%(18 patients) it was necessary to over-stabilize the fracture with a screw and 0,8 preferred conservative treatment. There is a significant correlation (p=0.0044) between the centro-medullary rod and the gender of the patients, therefore in most cases female patients required this particular type of intervention in a higher percentage than male patients. **Conclusions:** Pertrochanteric fractures are severe that have a significant impact on hip motility and mobility and surgical intervention is essential to achieve optimal recovery.

Keywords: pertrochanteric fractures, centro-medullary nail, orthopedics, recovery

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OUTCOMES AFTER PRIMARY OR SALVAGE SHOULDER ARTHROPLASTY FOR COMPLEX PROXIMAL HUMERUS FRACTURE IN ELDERLY PATIENTS

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Background: Surgical treatment of proximal humerus fractures (PHF) is controversial. Several studies have indicated that the reverse total shoulder arthroplasty (RTSA) represents the effective treatment of acute complex fractures in elderly patients. **Objective:** The purpose of this study was to compare the pain control and the functional outcomes of all patients with PHF treated with RTSA as a primary intervention versus those done secondarily after the failure of non-operative treatment or osteosynthesis. **Material and methods:** We retrospectively reviewed 5 patients treated with primary RTSA and 5 who underwent reverse total shoulder arthroplasty after failed initial treatment. The PROMs score (Patient-reported outcome measure) were performed at six month follow-up .The patients were evaluated for Visual Analogue Scale (VAS), Simple Shoulder Test (SST) and American Shoulder and Elbow Surgeons score (ASES). **Results :** Follow-up data were available for 10 patients (9 woman and one man) with a mean age of 68 years old for the primary RTSA group and 60 years old for the sequelae group. Analysed the demographic characteristics and the comorbidities, there were no significant differences between the two groups. Regardless of no statistically significant differences of VAS score (p=1.00), the pain was relieved better in the primary RTSA group. The acute fracture group significantly outperformed the secondary artrhroplasty group in ASES score (p=0.0027). The SST scores were worst for the sequelae group compared with the acute group, but the results were not statistically significant (p=0.05). The main limitations of this study were the small sample size, the short period of follow-up during the COVID pandemic and the differences between the surgical techniques. **Conclusions:** In this study, the reverse total shoulder arthroplasty performed as a primary treatment was associated with better pain control and clinical function of gleno-humeral articulation than the secondary intervention after failed non-operative treatment or osteosynthesis. The results support our initial hypothesis that the primary RTSA may represents the elective treatment for the acute complex proximal humerus fracture in the elderly patients. The literature on this topic also reported a significant pain relief and improvement of the functional outcomes in primary RTSA group. On account of study limitations, we recommend a subsequent analysis to evaluate the functional outcomes after reverse total shoulder arthroplasty for PHF treatment.

Keywords: Complex proximal humerus fracture,, Elderly patients,, Reverse total shoulder arthroplasty

BIOMECHANICAL PROPERTIES OF THE ABDOMINAL AORTA: LAYER-SPECIFIC ANALYSIS

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Background: The aorta is the largest artery of the body, having a wall structurally composed of intima, media and adventitia. The intima is mechanically negligible in a young and healthy aorta, being essentially a single layer of endothelial cells. This layer becomes mechanically significant, especially with ageing, due to non-atherosclerotic intimal thickening during which collagen fibers are deposited. The media consists of several concentric lamellar units linked together. Each of these units contains smooth muscle cells long-axis oriented at an angle close to the circumferential direction, surrounded by collagen fibers embedded in the extracellular matrix. Finally, the adventitia acts as a rigid, sheath-like tube at higher pressure levels, which prevents overstretching and rupture of the artery. In the adventitia, the orientation of the collagen fibers is closer to the longitudinal direction. **Objective:** This study aims to analyze the impact of aging upon the biomechanical properties of the three layers which compose the human abdominal aorta, the intima, media and adventitia. **Material and methods:** The harvested aortic tissue was carefully prepared and divided in samples of 5x5 mm2 and immersed in PBS (phosphate-buffered saline). Subsequently, we used the BioTester® 5000 (CellScale) for the biaxial biomechanical analysis of the tissue. The protocol implied a preconditioning cycle of stretching the sample until reaching the force of 50 mN, followed by 10 cycles of 50 seconds each (25 seconds of stretch and 25 seconds of recovery) until reaching 125% of the initial size. The data generated by the device at the last cycle were used for statistical analysis. **Results :** From the 30 abdominal aorta samples, we analyzed the entire wall, the adventitia and media from a biomechanical point of view, firstly in the circular axis, subsequently in the longitudinal one. For the circular Cauchy stress, when compared, we obtained a statistical significant difference between the adventitia and the media (p=0.035) and between the adventitia and the whole arterial wall (p=0.018). Similar results were obtained for the long axis: adventitia vs all layers (p=0.022), respectively adventitia vs media (p=0.008). We proceeded with the calculus of Young's modulus: for the circumferential axis, we determined a difference for the adventitia vs all layers (p=0.003); as for the longitudinal axis, we attained a p=0.010 for the same layers. **Conclusions:** According to our study, there are significant differences when it comes to the biomechanical properties of the abdominal aorta and its layers.

Keywords: abdominal aorta, arterial layers, biomechanical properties

COMPARATIVE ANALYSIS OF METHODS OF ARTIFICIAL INDUCTION OF LABOUR WITH PROPESS VAGINAL DEVICE AND OXYTOCIN

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Background: Artificial induction of labour (AIL) - induction of uterine contractions before their spontaneous occurrence in order to achieve a natural birth in a pregnant woman who wasn't previously in labour. This medical practice is carried out either with maternal or fetal indications, with the aim of decreasing perinatal morbidity and mortality without increasing maternal morbidity or for reasons of convenience. The most reliable methods designed to artificially trigger the delivery process remain the drug methods (oxytocin and prostaglandins) and the mechanical intracervical methods (Foley balloon, Cook balloon). **Objective:** Identification of cases of artificial induction of labour with Propess vaginal device and oxytocin drip for 2 years (1st January 2021 - 31st December 2022). Analysis of obstetric and neonatal results in order to streamline the recommendations for the application of the two methods of artificial induction of labour. **Material and methods:** The work represents a retrospective, observational study that took place between 1st January 2021 - 31st December 2022 and includes full-term pregnant women. Comparative analysis of methods of artificial induction of labour in full-term pregnant women in Obstetrics and Gynecology Clinic 1, Târgu Mureș were performed with the monitoring of the maternal and fetal parameters. **Results :** We took into account the most relevant parameters in the conducted study, as follows: maternal parameters - the duration from the application of the method of artificial induction of labor until delivery, obstetric trauma and postpartum haemorrhage, respectively fetal parameters - Apgar Score. The duration from the application of the artificial methods of triggering the labour was between 7 and 21 hours for the patients who were administered the Propess type device, respectively between 21 and 32 hours for the patients who were

administered oxytocin. 18% of pregnant women had no obstetric trauma in the Propess group, respectively 9.3% - in the oxytocin group. Post-partum hemorrhage was on average 300 ml in both situations. Regarding to the Apgar score, we had an average score of 9.61 for the Propess type device and 9.89 for the oxytocin group. **Conclusions:** In case of the maternal parameters taken into account, the labor induction method (Propess vs Oxytocin) seems to have a significant impact on the duration (from the application of the method of artificial induction of labor until delivery), obstetric trauma, in favor of Propess type devices, but doesn't seem to influence postpartum haemorrhage. In case of the Apgar score, the administration of oxytocin seems to be superior to the Propess type device.

Keywords: artificial induction of labour, Propess vaginal device, prostaglandin, oxytocin

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IS CESAREAN SECTION ON DEMAND A MATTER OF RIGHT OR WRONG?

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Background: Most countries witnessed a dramatic rise in Cesarean section rates during the last decades, particularly the developed ones. Mother's demand is one of the conducive factors as they try to overcome the suffering which they fear during labour and vaginal delivery. Having children and bringing them up is a blessing given only to women, so the healthcare provider should understand their perspective and the causes for this demand. To do or not to do that is the question. Performing C-section at the mother's request without any medical indication creates a debate around the safety of the mother and her baby; maternal and professional satisfaction; and ethical issues. The case should be individualized considering general evidence-based guidelines in this context. Evidence to guide medical practice in this regard is clearly needed. Thus, detailed studies in the context of evidence-based medicine are essential. **Objective:** To evaluate the risks and benefits involved in the practice of caesarian delivery on maternal request without medical indication compared to the planned vaginal delivery. **Material and methods:** PubMed database was searched and filtered by the last 5 years. With the revision of ACOG, NICE, FIGO, RANZCOG, and SOGC guidelines. **Results :** 53 results were chosen from a total of 267 results. The deeper inspection of the full text revealed that only 11 quantitative articles and 23 qualitative articles were relevant from the 53-total inspected. **Conclusions:** Cesarean section without indication is harmful and should be only done if justified and its benefits outweigh its harmful effects.

Keywords: Cesarean Section, on demand, counselling, neonatal outcomes

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"ENHANCING LONGEVITY OF TOTAL HIP ARTHROPLASTY IN PAPROSKY TYPE II AND III ACETABULAR DEFECTS: A STUDY ON THE EFFICACY OF REINFORCEMENT DEVICES AND BONE GRAFTING"

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Background: The long-term success of total hip arthroplasty (THA) is contingent upon effective management of acetabular defects, which represent a substantial challenge in reconstructive orthopedic surgery. Complexity of these defects, particularly Paprosky type II and III, requires innovative approaches to ensure the stability and longevity of the prosthetic joint. Use of reinforcement devices (RD) combined with bone grafting has emerged as a promising technique to address this issue, aiming to restore the hip's anatomical structure and function. **Objective:** This study was designed to evaluate the radiological outcomes of acetabular reconstruction using RD and autologous bone grafting in patients with Paprosky type II and III acetabular defects. We aimed to assess the effectiveness of this combined approach in achieving resilient hip function and reducing the need for subsequent revision surgeries. **Material and methods:** A comprehensive retrospective analysis in a time span of 10 years was conducted on a cohort of patients 18 (18 hips), out of which 4 patients underwent acetabular reconstruction with RD and bone grafting. Patients were followed for an average of 1.7 years. Radiographic evaluations were performed to monitor the stability of the hip center of rotation, integrity of the medial acetabular wall, and the integration of the bone grafts. **Results :** The study demonstrated that acetabular reconstruction with RD and bone grafting achieved stable reconstruction outcomes, evidenced by the osseointegration of bone grafts and RD devices postoperatively in surrounding tissue at the final follow-up. Only one patient had implant mobilization due

to trauma at the five-year mark, but not due to osteolysis. **Conclusions:** Our findings suggest that acetabular reconstruction using RD and bone grafting offers a reliable and effective treatment option for significant acetabular defects. This approach provides satisfactory mid-term outcomes, enhancing the prospect of achieving long-term prosthetic joint stability and reducing the incidence of revision surgeries

Keywords: revision, reinforcement device, bone graft, Paprosky defects

FAT GRAFTING FOR IMPLANT-BASED BREAST RECONSTRUCTION. IS IT A GAME CHANGER?

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Background: Nowadays, Breast Surgery has become a field full of high expectations where implant-based reconstruction after mastectomy is continuously gaining popularity. Fat grafting can be used to improve aesthetic outcomes after reconstruction with an implant, but this is a debatable subject since extensive research has not been made on this topic. Moreover, the main concerns about it were initially the oncogenic potential and neoplastic calcification, which have been disproven by current research. **Objective:** The aim of this review is to determine and quantify the benefits and risks of fat grafting combined with breast reconstruction using implants. **Material and methods:** Articles between 2011 and 2023 from PubMed Database were selected based on their topic and title, using the keywords: *fat grafting* and *implant breast reconstruction*. In order to be included, articles had to be written in English and free full text must have been available. Animal model studies and single cases were excluded from the selection process. Out of the total number of 108 results, only 16 met the aforementioned criteria and were included in the analysis. From each one of them, data related to complications and aesthetic outcomes (using an aesthetic grading value from 1 to 5) was extracted. **Results :** Fat grafting was performed in variable sessions (1-5), depending on the necessity of each patient included in the selected articles. The average volume in one session varied between 59.8 ml and 313 ml. The complications that were met are, in their descending order, fat necrosis (2.7%), seroma, implant infection, hematoma, skin necrosis, implant malposition and even implant rupture (0.1%). The aesthetic score was reported by only 5 out of 16 articles and varied between 4 and 4.8 and it was stated that the group where hybrid breast reconstruction was performed had a higher overall aesthetic score (in terms of volume, appearance and contour) than the control group which underwent reconstruction using either implant or fat grafting. **Conclusions:** Breast Reconstruction using implants has proven to be more effective when combined with fat grafting, not only due to its encouraging results (shown by high values of the aesthetic score), but also because it is a safe procedure, with a low rate of complications. Therefore, the obvious benefits justify why fat grafting should be done in current clinical practice, contributing to the development of Breast Surgery.

Keywords: Fat grafting, Implant, Breast, Reconstruction

RISK FACTORS AND MANAGEMENT OF PERIPROSTHETIC FEMORAL FRACTURES AFTER TOTAL HIP ARTHROPLASTY

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Background: Periprosthetic fractures (PFs) present a significant challenge in post-arthroplasty management, primarily in cases of total hip arthroplasty (THA). Constituting approximately 20% of PF occurrences these fractures pose considerable concerns requiring extensive study. Identified etiologies encompass osteoporosis and osteopenia, non-cemented fixation techniques, females, and the activity levels of older adults. The heterogeneity of fracture types and subsequent surgical outcomes necessitates a personalised approach to treatment. **Objective:** We aimed to assess radiological changes and identify prevalent risk factors for PFs following THA, using the Vancouver classification as a guiding framework for therapeutic interventions. **Material and methods:** A retrospective cohort study was conducted on 29 patients who sustained periprosthetic femoral fractures post-THA between 2019 and 2023. Utilizing the Vancouver classification, we stratified fractures by intervention strategy, including non-operative care, open reduction with internal fixation, and revision arthroplasty. The demographic comprised 18 females and 11 males, with a mean age of 62 years (range: 53-71), monitored over an average of 21 months (range: 12-30). **Results :** PFs were often observed in females with osteoporotic profiles and those with non-cemented THAs. Over 50% of fractures were attributed to low-energy traumas. The study revealed a

predominant incidence of PFs among females (62.1%), individuals with osteoporosis (69.0%), and those who underwent uncemented THA (58.6%). Low-energy trauma was identified as the precipitating event in over half (55.2%) of the cases. Stratification by the Vancouver classification showed a majority within 'B' category (65.5%), with 'A' category constituting 17.2%, and no instances in group 'C'. The average Harris Hip Score (HHS) indicated a moderate postoperative recovery with group 'A' scoring an average of 75.3 (SD±5.4) and group 'B' scoring an average of 68.4 (SD±7.5), reflecting the increased complexity of their fractures. Noteworthy is the finding that adjunct pharmacotherapy, primarily bisphosphonates, administered to 48% of the patients, correlated with a non-statistically significant trend (p=0.21) towards higher HHS scores. **Conclusions:** Our findings confirm osteoporosis, female sex, non-cemented THA, and low-energy trauma as significant contributory factors for PFs. This suggests a potential role for pharmacotherapy in enhancing postoperative outcomes, though further investigation is warranted. Enhanced prophylactic measures and adjunct pharmacotherapy should be might be considered for superior prophylaxis against PFs.

Keywords: Periprosthetic fractures, Total Hip Arthroplasty, Vancouver Classification, Osteoporosis

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PREOPERATIVE PREDICTORS OF AORTIC PATHOLOGIES: A COMPREHENSIVE EXAMINATION OF INFLAMMATORY AND COAGULATION MARKERS ACROSS SURGICAL PHASES

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Background: Aortic aneurysms (AA) and aortic dissections (AD) present significant challenges in cardiothoracic surgery, with AD requiring urgent and accurate diagnosis due to its potentially fatal nature. The Aortic Dissection Detection Risk Score (ADD-RS) assists in this process by incorporating risk factors, clinical findings and D-dimers to help clinicians categorise patients and select appropriate imaging. Ongoing research is extending this approach by investigating the role of other inflammatory and coagulation markers. **Objective:** The aim of this research is to investigate the correlations and predictive value of inflammatory and coagulation markers for the identification of AA and AD and to analyse their behaviour patterns during the preoperative, perioperative and postoperative phases in order to improve the diagnostic process and patient management. **Material and methods:** This single-centered retrospective analysis examined the data from 162 patients diagnosed with AA, AD, or both pathologies, undergoing surgery at the Cardiovascular and Transplant Emergency Institute of Târgu Mureș, Romania, from January 2022-February 2024. The levels of selected biomarkers, namely Leukocytes, Thrombocytes, INR, Fibrinogen, Hemoglobin across different surgical stages and their predictive ability for the presence of AA or AD were evaluated. **Results :** 43.8% of the patients included have AA, 43.2% have AD and 13% have both pathologies. The AD group showed positive and statistically significant correlations with leukocytes (r=0.464; p<0.001) and prothrombin time (r=0.274; p=0.009), AA group showed moderate positive and statistically significant correlations with haemoglobin (r=0.267; p=0.001) and Fibrinogen (r=0.297; p=0.015). Both univariate and multivariate logistic regression of AD identified preoperative Leukocytes (OR, 1.342; 95% CI, 1.188 - 1.516; p □□ 0.001, respective OR, 1.508; 95% CI, 1.236-1.839; p □□ 0.001) and preoperative prothrombin time (OR, 1.492; 95% CI, 1.023 to 2.476; p □□□□□□□ respective OR, 1.122; 95% CI, 1.000-1.259; p=0.05), as statistically significant predictors for AD. Multivariate logistic regression of AA identified preoperative Fibrinogen (OR, 1.01; 95% CI, 1 - 1.012; p □□□□□□□□ and Haemoglobin (OR, 1.63; 95% CI, 1.63- 1.06; p=0.025) as predictors for AA. **Conclusions:** Despite the small sample size, significant differences in inflammatory and coagulation markers across aortic pathology groups were observed. Elevated leukocyte counts and longer prothrombin time were linked with AD, whereas increased fibrinogen and hemoglobin levels indicated AA. These findings highlight the importance of considering a wider range of laboratory markers than in guidelines for the diagnosis of aortic disease. It should encourage clinicians, to integrate this knowledge into their assessment in emergencies, but further research is needed to fully address this issue.

Keywords: Acute Aortic Dissection, Aortic Aneurysm, Risk Factors, Fibrinogen

LINKING PREOPERATIVE BIOMARKERS TO POSTOPERATIVE OUTCOMES IN AORTIC SURGERY: A FOCUS ON ACUTE KIDNEY INJURY AND IN-HOSPITAL MORTALITY

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Background: Individuals affected by aortic dissection (AD) are at a high risk of developing acute kidney injury (AKI) or even dying in hospital postoperatively. Both outcomes are major concerns by affecting patient prognosis and survival. Current research is investigating how certain specific preoperative patient's characteristics and conditions during surgery, can help predict serious complications. **Objective:** The aim of this study is to elucidate the predisposing factors for AKI and in-hospital death. **Material and methods:** A total of 91 patients undergoing surgery for AD between January 2022 and February 2024 were identified from Cardiovascular and Transplant Emergency Institute Târgu Mureș database. The primary outcome was postoperative AKI as defined by the Kidney Disease Improving Global Outcome criteria and the secondary outcome was in-hospital death. Pearson correlation and Logistic regression models were used to identify univariate and multivariate predictors of AKI and mortality. **Results :** 30.77% of patients developed AKI and 60.7% of these patients died during hospitalization. The AKI group showed mild positive and two statistically significant correlations with history of kidney disease (r=0.255; p=0.015), hemopericardium (r=0.225; p=0.032) and preoperative INR (r=0.263; p=0.05). Univariate logistic regression of AKI identified history of kidney disease (OR=3.789; 95% CI=1.241-11.573; p=0.019) and hemopericardium (OR=2.688; 95% CI=1.076-6.714; p=0.034) as statistically significant predictors for AKI. Multivariate logistic regression of AKI identified both variables as statistically significant predictors (Kidney disease: OR=3.796; 95% CI=1.201- 11.998; p=0.023; and hemopericardium: OR=2.692; 95% CI=1.04-6.940; p=0.04). The ROC curve generated an area under the curve (AUC) of 0.673 for both variables. The percentage of patients who died postoperatively inside the hospital was of 53.85% compared to 46.15% who survived. The deceased group showed a positive correlation with cardiopulmonary bypass (CPB) duration (r=0.249; p=0.031) and a negative with glomerular filtration rate (r=-0.228; p=0.035). During univariate logistic regression the positively associated variable revealed an OR of 1.006 (95% CI=1.000-1.01; p=0.037). The produced ROC curve revealed an AUC of 0.661. **Conclusions:** Kidney disease history and hemopericardium were associated with the risk of postoperative AKI and longer CPB time was correlated with in-hospital mortality in patients with AD. These findings emphasize the importance of taking into account a comprehensive range of patients and surgery characteristics in prediciting postoperative outcomes. Further studies are needed to support these findings for optimising postoperative patient outcomes.

Keywords: Aortic Dissection, Acute Kidney Injury, In-Hospital Mortality, Glomerular Filtration Rate

THE IMPORTANCE OF CLASSIC PROGNOSTIC FACTORS IN EARLY DIAGNOSIS AND PREVENTION OF BREAST CANCER

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Background: Given the increased incidence of breast cancer cases among the female population worldwide (665,684 deaths, with a higher rate in Belgium and well-developed countries), as well as its presence among males, I consider this topic to be both important and timely. According to numerous epidemiological and laboratory studies, it has been clearly demonstrated that using more screenings and modern diagnostic methods is helpful in the early detection of the disease and can reduce mortality, as well as morbidity. Currently, this pathology represents the most common form of cancer among women and the second leading cause of death, induced by malignant tumors. Despite increasingly frequent free screening programs and modern diagnostic methods, the five-year survival rate remains low. **Objective:** The aim of my paper was to determine which classic prognostic factors are important by analyzing the trajectory and routine control that a patient with breast carcinoma should undergo. **Material and methods:** The study included 259 patient analysis reports from the Pathological Anatomy department of the "Targu Mures County Clinical Hospital", admitted between 2018-2023. The first step to begin the study, whithin the mentioned time period, was to search and filter patients from the hospital database who were diagnosed upon discharge with breast carcinoma. Based on these results, data was collected from the observation

sheets in electronic format,that had an anonimous character. For each patient, primarily a tru-cut biopsy and an immunohistochemical examination were performed, providing the necessary data regarding the studied parameters: Age, Localization, Histological type, Investigations, Nottingham Grade, tumor stage, type of intervention, and treatment used. **Results :** In this current study, it was observed that the most affected age group was in the sixth and seventh decades (with a percentage of over 50%) and predominantly localized in the right breast, specifically in the supero-external quadrant. The incriminated histological type was NST (no specific type) with a number of 212 cases and a predominant classification in Nottingham Grade 2 (163 patients). In terms of TNM classification, stages T1, N0, Mx, were the most frequent characteristics describing breast carcinomas. The use of sector resection with or without axillary clearance was the preferred management in 50% of cases, and regarding neoadjuvant therapy, 91 out of 119 patients were directed towards chemotherapy. **Conclusions:** Periodic checkings in adult women performed at least annually can prevent diagnosis in advanced stages.

Keywords: Breast Cancer, Prognostic Factors, Oncological treatment, Prevention

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EARLY BIOMECHANICAL REMODELING IN THE GREAT SAPHENOUS VEIN WALL DURING CHRONIC VENOUS INSUFFICIENCY PROGRESSION

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Background: Varicose vein disease is a frequent medical condition defined by dysfunction in superficial, perforating, and deep venous vessels. Its occurrence escalates with advancing age, primarily affecting adults. Though often viewed as a cosmetic concern, it poses a notable threat of developing superficial venous thrombosis and venous thromboembolic disease. **Objective:** The aim of this study is to compare and analyze the biomechanical differences between healthy great saphenous vein (GSV) specimens and varicose ones. **Material and methods:** This experimental study was conducted in the Vascular Surgery Clinic of the Emergency County Hospital in Targu Mures, Romania. It involved 71 patients, of which 29 had mild chronic vein insufficiency. During surgery, we harvested the specimens and analyzed their uniaxial mechanical characteristics. To determine the biomechanical profile, we subjected the specimens to a 25% stretch in the circumferential axis using the CellScale 5000 biotester in the Regenerative Medicine Laboratory located within the CCAMF. **Results :** Our findings revealed a higher Cauchy stress (kPa) for the varicose veins (148,57 vs 97,41 p=0.057), as well as for the Young's modulus (kPa) (1346,8 vs 1018,47 p=0.17). Moreover, at Spearman correlation, we found that higher diameter of the vein is positively correlated cu Cauchy stress (kPa) (r=0.351, p=0.004), as well as Young's modulus (R=0.244, p=0.048). Given these results, we should mention that there was no statistical difference in wall thickness between the healthy and varicose walls. **Conclusions:** Higher tensile stress was registered in the varicose veins group, implying that the varicose wall presents a higher rigidity. It is important to carefully select the segment of the GSV when it is used as a venous graft for revascularization of the lower limb and the myocardium. This is because the venous wall loses its compliance in the initial stages of chronic venous insufficiency.

Keywords: varicose veins, biomechanical analysis, great saphenous vein, biomechanical remodeling

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THE ROLE OF RETURBT IN THE EVOLUTION OF BLADDER CANCER

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Background: Bladder cancer is a commonly encountered malignancy, predominantly affecting men. Alongside genetic predisposition, major risk factors include smoking, occupational exposure to carcinogens, obesity. Transurethral resection of bladder tumors stands as the preferred approach for managing superficial tumors, serving as both a diagnostic and staging tool, as well as a therapeutic intervention. **Objective:** Our primary aim was to describe tumor evolution in patients who underwent repeated transurethral resection of the urinary bladder tumor (RETURBT) and to identify the existence of a difference regarding the histopathological results obtained before and after the procedure. **Material and methods:** The current study is descriptive and retrospective, which includes 139 patients admitted to the urology department in Targu Mures, during 2021-2022, with bladder tumors for which RETURBT was performed. Furthermore, we investigated the smoking status and the association of obesity. **Results :** From the total of 139 patients (100%), 112 (80,6%) were male and 27 (19,4%) were female. Obesity was detected in 83 of patients (59,70%). 81 of the patients are active smokers (58,3%), 51 have stopped

smoking (36,7%) and 7 have never smoked (5%). Regarding the histopathological result obtained at the first transurethral resection, we detected 63 patients with pTa (45,3%), 61 patients with pT1 (43,9%), 13 patients with pT2 (9,3%). Also, the grade of cell differentiation was G3 in 67 cases (48,2%) and G2 in 54 cases (38,8%). The histopathological results obtained through RETURBT were 53 patients with pTa (38,1%), 35 patients with pT1 (25,2%) and 20 patients with pT2 (14,3%). The grade of cell differentiation was G3 detected in 31 cases (22,3%) and G2 in 42 cases (30,2%). The histopathological results before and after RETURBT were compared statistically, obtaining a $p<0.0001$, which demonstrates the existence of a significant difference between them. Regarding tumor staging, 52 patients had a downstage (37.41%), 20 patients had an upstage (14.39%) and 67 patients had the same histopathological result before and after RETURBT (48.20%). **Conclusions:** The study outlines that males are more affected. Most patients exhibited an association with smoking and obesity. In terms of the evolution of bladder tumors, RETURBT plays a significant role for patients who have remained at the same stage and those with tumor regression, as well as for those who have progressed towards invasiveness. Thus, through RETURBT, an effective tumor staging and a prompt therapeutic method are achieved.

Keywords: Bladder cancer, RETURBT, Histopathological results

PERIPARTUM HYSTERECTOMY FOR SEVERE MATERNAL OUTCOMES – THE LAST FRONTIER

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Background: Obstetric hysterectomy is performed as a life-saving intervention in cases of potentially lethal obstetric complications when other medical or surgical conservative treatments fail. Post-partum hysterectomy is also a valuable indicator used to assess and analyze severe maternal complications. **Objective:** The main outcomes were the prevalence and indications of peripartum hysterectomy. Additionally, we compared the prevalence of peripartum hysterectomy between women giving birth vaginally and by cesarean section, and between women giving birth with and without previous cesarean section. **Material and methods:** We performed a descriptive, multicentric study among women who underwent peripartum hysterectomy for severe maternal complications. Data were retrospectively collected from six academic maternity units from different Romanian geographic regions. We included hysterectomies performed from 24 gestational weeks up to 42 days postpartum for severe obstetric complications. **Results :** During the five-year collection interval (1 Jan 2019-31 Dec 2023) a total of 231 post-partum hysterectomies were performed, from a total of 88932 deliveries recorded in six academic maternity units in Romania. The prevalence of post-partum hysterectomy was 26/10000 deliveries (95% CI: 14,41-38,39). We noted important variations across centers, ranging from 14/10000 to 46/10000 deliveries. No maternal death associated with post-partum hysterectomy was identified in our cohort. The lowest post-partum hysterectomy rate was registered in the center with the lowest cesarean section rate. The primary reasons for hysterectomy were post-partum uterine atony refractory to medical and obstetrical management and placental adhesion pathology, respectively. National databases from several European countries reported a much lower prevalence of post-partum hysterectomy (5,2 per 10000 deliveries, ranging from 2,6 in Denmark to 10,7 in Italy). However, it is difficult to translate our findings from six tertiary centers to the entire landscape of Romanian maternity centers, nationwide. **Conclusions:** Despite the availability of national guidelines on postpartum hemorrhage, we detected important differences across academic settings in performing peripartum hysterectomy. The frequency of peripartum hysterectomy is likely to increase as a result of the growing number of cesarean deliveries and subsequent associated placental pathology. To better understand the complex relationship between post-partum hysterectomy rate and maternal outcome we became part of a Multicountry prospective case-control population-based study on hysterectomy -a prospective population-based case-control study in 12 countries in Europe and Africa.

Keywords: Postpartum hysterectomy, Obstetric haemorrhage, Severe maternal outcome

A SURGICAL PROCEDURE FOR LATERAL PELVIC CANCER RECURRENCES: LATERALLY EXTENDED PARAMETRECTOMY (LEP)

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Background: Laterally Extended Parametrectomy (LEP) was imagined initially for the treatment of lymph node positive stage Ib and stage IIb cervical cancer as a more radical surgical aiming to remove the entire parametrial tissue containing lymphatic channels and nodes from the pelvic side wall. Secondary, LEP was considered as a mandatory step in pelvic exenteration for lateral pelvic recurrences, when the tumor involves the soft structures of the pelvic side wall, for a more radical dissection aiming to obtain tumor free margins. **Objective:** To describe a surgical technique suitable for removing tumors involving the pelvic side wall. **Material and methods:** Out of the 95 pelvic exenterations performed in a tertiary university hospital for pelvic cancers, in 9 patients a LEP was needed in order to remove a tumor involving the pelvic wall. **Results :** Patients' age ranged between 41 and 71 years old (median 53.4). All 9 patients had recurrences or persistent cervical cancer after definitive chemoradiation +/- initial radical surgery. Operating time ranged from 310 to 435 minutes. Blood loss was between 400 and 2200 mL and in 4 patients an intraoperative blood transfusion was needed. No major surgical or anesthesiologic intraoperative complications or perioperative deaths were recorded in this cohort. Postoperatively, one patient has experienced a grade IIIb Dindo-Clavien complication (reoperation for a small bowel fistula), and 3 patients - grade I or II Dindo-Clavien. Macroscopic intraoperatively lateral free margins were obtained in all 9 patients, but in the surgical specimen, in 2 patients, a microscopic tumor was described and they were sent for adjuvant chemotherapy. Regarding disease-free survival and overall survival, we considered that our cohort is too small in order to draw definitive conclusions. **Conclusions:** LEP might be considered as a mandatory surgical procedure during pelvic exenteration in tumors involving the lateral pelvic wall and should be part of the requested optimum training for a gynecologic oncologist surgeon.

Keywords: cervical cancer, pelvic exenteration, radical surgery

REGIONAL MECHANICAL PROPERTIES OF THE AORTA: INSIGHTS INTO VASCULAR FUNCTION

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Background: Arterial studies indicate that biomechanical changes in the arteries play an important role in the onset and progression of aortic degenerative diseases. It is well known that the organization of collagen fibers determines the mechanical behavior of the arterial wall, through their orientation and dispersion. However, regional differences in the organization and mechanics of collagen fibers along the aorta are only vaguely investigated, and understanding local mechanobiological processes may lead to the identification of key points in the wall remodeling mechanism. **Objective:** The aim of this study is to evaluate the regional biomechanical differences of the abdominal aorta. **Material and methods:** We analyzed 60 samples of human aorta (12 from the ascending thoracic aorta, 16 from the aortic cross, 16 from the descending thoracic aorta and 16 from the infrarenal aorta). We used the BioTester® 5000 (CellScale, Waterloo, ON, Canada) for the biaxial biomechanical analysis of the aortic tissue. As for the protocol, we initiated a preconditioning cycle of stretching the sample until reaching the force of 50 mN, followed by 10 cycles of 50 seconds each (25 seconds of stretch and 25 seconds of recovery) until reaching 125% of the initial size. The data generated by the device at the last cycle were used for statistical analysis. **Results :** After the biomechanical analysis, we observed that, when it comes to Cauchy stress for the longitudinal axis, the infrarenal aorta had the highest tensile stress (p=0.017), meanwhile, for the circumferential one, we observed a difference between all four segments (p=0.003), the most resistant being the descending aorta, followed by the infrarenal, the aortic cross and, lastly, the ascending aorta. Regarding the Young's modulus in the longitudinal axis, there wasn't any significant difference between the samples, but for the circumferential one, the infrarenal aorta showed a higher rigidity than the cross (p=0.024) and the ascending (p=0.046). **Conclusions:** Descending and infrarenal aorta present greater biomechanical properties than the other 2 segments. This comes to explain why there is a higher incidence of the aneurysms in the ascending and aortic cross, respectively a more frequent apparition of aortic dissection in the descending thoracic aorta.

Keywords: biomechanical properties, thoracic aorta, abdominal aorta

NUTRITION AND DIETETICS

PRELIMINARY NUTRITIONAL INSIGHTS ON HIGH FAT DIET IN ANIMAL MODELS FOR MAFLD/NAFLD PRECLINICAL STUDIES

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Background: Non-alcoholic fatty liver disease (NAFLD) or the newly changed name Metabolic dysfunction-associated fatty liver disease (MAFLD) is a growing global health problem driven by high fat and sugar diet and a sedentary lifestyle. Untreated severe forms of NAFLD can lead to cirrhosis and hepatic carcinoma. There is a lack of clinically relevant preclinical models for fatty liver disease. This problem has led to most drug candidates that were successful in preclinical development failing once they reach clinical trials. Animal models are crucial for improving our understanding of human pathogenesis, enabling researchers to identify therapeutic targets and test novel drugs and nutraceutical products. The only recommendations for NAFLD are a healthy diet, lifestyle and food supplements. **Objective:** It is crucial to test new drugs or food products on animal models that reflect the biology of the conditions we wish to treat in humans. As MAFLD defines a new pathological condition, there is an urgent need to create new animal models that reflect MAFLD and its subtypes: overweight/obese MAFLD, diabetes MAFLD and metabolic syndrome MAFLD. Development of food product for special nutritional states, adjuvant in the treatment of non-alcoholic hepatic steatosis and preclinical verification of its effectiveness are the study objectives. Recognition of these three subtypes of MAFLD will be translated into clinical trial design in the future to test innovative food product in more homogenous patient populations in terms of pathological processes. **Material and methods:** The present study is an experimental, preclinical study, carried out on laboratory animal models represented by thirty-two Sprague-Dawley rats, both males and females of 6 months of age, hosted in individual cages. Animals were fed with either standard nutrition or a high-fat diet, containing a high proportion of fat calories. Body weight, urine, blood sugar, and 11 hepatic parameters were analyzed at the end of the adaptation period and induction period. **Results :** Sprague-Dawley rats showed overweight/obese status in 10% of rats. No significant differences in biochemical, glycemic and urine parameters have been observed in the first month of induction. The more significant differences have been observed between female and male rats. **Conclusions:** We focus on issues such as reproducibility and practicality, discussing the advantages and weaknesses of available models for the future animal studies on MAFLD/NAFLD. In conclusion, the strain of the animals included in the research, individual differences, gender, diet and microclimate conditions should be taken into account when designing a study that may provide new ways to advance therapeutic strategies.

Keywords: MAFLD/NAFLD, animal models, Sprague-Dawley rats, high fat diet

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THE IMPACT OF PSYCHONUTRITIONAL INTERVENTION IN IMPROVING THE NUTRITIONAL STATUS OF THE YOUNG OBESE

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Background: Obesity is a largely preventable chronic and complex disease that has become alarmingly widespread worldwide, especially among young people. Psychonutritional intervention provides methods and coping strategies to enhance nutritional status. **Objective:** We aimed to assess the impact of psychonutritional intervention on nutritional status among young obese patients. **Material and methods:** The study was carried out in the medical office by 1 nutritionist-dietitian and 1 psychologist, between the 1st of June and the 30th of September 2023, on 24 obese patients aged 19 to 25. To track the changes, the sample was divided into two equal groups: the group G1, those who underwent psychonutritional intervention, and the group G2, those who did not benefit from it. Evaluation and monitoring were conducted at the initial consultation (T0) and at the final consultation (Tf). **Results :** The gender distribution, female-to-male ratio was 2/1 (n=16 females). At the initial consultation, the average weight was 94.26 kg for G1, and 95.16 kg for G2, while at the final consultation, it was 78.58 kg for G1, and 88.35 kg for G2 ($p < 0.05$). Moreover, we noticed that the average Body Mass Index, at the initial consultation, it was 36.82 kg/m2 for G1, and 37.18 kg/m2 for G2, while at the final consultation, it was 29.63 kg/m2 for G1, and 34.52 kg/m2 for G2 ($p < 0.05$). **Conclusions:** In our study, the findings highlight the beneficial effects of psychonutritional intervention on improving the nutritional status of young obese patients, and underscore the potential of psychonutritional approaches as an effective tool in promoting healthier lifestyles and

combating obesity among young individuals.

Keywords: nutritional status, obese patient, psychonutrition, young people

BENEFICIAL FOODS IN IRRITABLE BOWEL SYNDROME AND INTERACTION WITH SOME DRUGS

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Background: Irritable bowel syndrome is a chronic functional gastrointestinal disorder, having among symptoms increased motility, abdominal pain, constipation or diarrhea, distension and bloating. The effects of ingested food is the result of the interaction between intestinal bacteria and intestinal endocrine cells. The patients with irritable bowel syndrome have a lower density of endocrine cells, confirming the diagnosis. This disease is twice as common at women. **Objective:** Identifying foods allowed in irritable bowel syndrome and their interactions with different drugs. **Material and methods:** This study is a review of the literature based on the clinical studies published on PubMed in the period 2017-2024. 16 scientific sources were researched. They were followed the dietary recommendations for this disease and their interaction with various substances from drugs administered for the treatment of other diseases (Warfarin, Levothyroxine, Levodopa). **Results :** The researchers have demonstrated that cranberry juice, orange, lemon, dietary fiber and the vegetables rich in vitamin K, have an influence on the absorbtion of various drugs. **Conclusions:** Before starting a drug treatment, it is desirable for each person to consult a dietetician for to give him information about a correct diet from the point of view of nutritional needs, but also associated pathology.

Keywords: Drugs, Food, Microbiome, Interactions

EVALUATING THE RISK OF ANEMIA AMONG MEDICAL STUDENTS AT UMFST UNIVERSITY

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Background: Anemia represents the decrease in the amount of hemoglobin within red blood cells, which transport the oxygen necessary for various metabolic processes and ensure the optimal functioning of all organs. Some types of anemia can be prevented through a varied and healthy diet. Demanding study programs and stressful situations often lead medical students to adopt an unhealthy lifestyle and make inadequate dietary choices, thereby inducing anemia. **Objective:** The objective of this study was to obtain data regarding the habits, dietary choices, and diets of Medical students at UMFST University in Târgu Mureș, in order to determine the correlation between diet and anemia, as well as to promote healthy lifestyle. **Material and methods:** Material and Method: 81 medical students were recruited, of which 27% were General Nursing students, 37% were General Medicine students, and 36% were Nutrition and Dietetics students. A questionnaire consisting of 36 questions regarding lifestyle, diet, food choices, and food combination methods was used, distributed online through the Google Forms platform. Prior to completing the questionnaires, participants were asked to provide consent for completing the surveys while ensuring their anonymity. Students with forms of anemia other than iron-deficiency anemia were excluded from the study. **Results :** The results indicate a correlation between the students' diet (food sources, frequency, or quantity of consumption) and the parameter of serum iron levels, with statistically significant values obtained, distributed according to the students' specialization and corresponding study program. **Conclusions:** Conclusions: These results suggest that diet is the influencing factor in the occurrence of anemia (in the absence of a genetic or metabolic cause), and that an adequate diet can support an optimal state of health.

Keywords: Anemia, diet, nutrition, health

PHYSIOTHERAPY

POSTOPERATIVE PHYSICAL RECOVERY AND REHABILITATION IN PATIENTS WITH PERIPHERAL ARTERIAL DISEASE

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Background: Peripheral Arterial Disease (PAD) is a serious cardiovascular condition that affects millions of people worldwide. It is characterized by the narrowing of arteries that carry blood to the lower limbs, leading to significant pain and discomfort. Following surgical interventions for PAD, patients often experience substantial pain and reduced quality of life. **Objective:** The purpose of this study is to explore the effectiveness of massage and kinesiotherapy techniques in improving well-being and reducing pain in postoperative PAD patients. We aim to demonstrate that these methods can contribute to faster and more efficient recovery. **Material and methods:** A clinical study involving a sample of 30 subjects with PAD who have recently undergone surgery is currently underway at the Emergency County Clinical Hospital in Târgu Mureș, from March to June 2024. The subjects are undergoing a six-week program of massage and kinesiotherapy. We regularly monitor their well-being and pain levels through standardized questionnaires and clinical assessments. **Results :** Our findings indicate a significant improvement in well-being and a reduction in pain among subjects who participated in the massage and kinesiotherapy program. Most subjects reported better quality of life and improved ability to perform daily activities. **Conclusions:** Massage and kinesiotherapy can play a crucial role in the recovery and rehabilitation of postoperative PAD patients. These non-invasive and cost-effective methods should be considered an integral part of postoperative treatment plans for PAD patients. Our study suggests that these techniques can significantly enhance patients' quality of life and alleviate pain associated with PAD.

Keywords: Peripheral Arterial Disease (PAD), Postoperative Recovery, Massage, Kinesiotherapy

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ASSESSMENT, MONITORING, AND MAINTENANCE OF THE SLAP 2 LESION

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Background: The rehabilitation expert has a substantial problem when dealing with pathology of the glenoid labrum (SLAP lesion) owing to the intricate nature and diverse range of etiologic variables associated with these injuries. The glenoid labrum is a fibrocartilaginous structure surrounding the edge of the glenoid fossa. It stabilises the glenohumeral joint by contributing approximately 50% of the glenoid depth. It is an attachment site for the glenohumeral ligaments and the long head of the biceps tendon. The symptoms of "SLAP" pathology can be confused with different diagnoses, such as impingement, pain in the acromioclavicular joint, bicipital tendonitis, or glenohumeral instability. Clinical examination frequently shows underlying glenohumeral instability. A positive O-Brien test is also suggested for the diagnosis. The method of choice for diagnosis of SLAP lesion is arthroscopy. Currently, there are no studies for conservative treatment of this type of lesion. The standard treatment is surgery. **Objective:** To carry out the conservative maintenance plan of the lesion so that at the time of medical re-evaluation, the athlete does not have complications or an advanced type of lesion, and the symptoms are reduced. **Material and methods:** The present work is a case study of a competitive volleyball player during the competitive period. In correlation with her training, the rehabilitation plan will be adapted so that the patient's pain and instability are mainly relieved. Still, at the same time, her sporting activity is affected as little as possible, working in particular on the range of motion and muscular strength of the shoulder girdle muscles - to reduce the effects of the SLAP injury. **Results :** Results will be presented during the Marisiensis International Scientific Congress because the study is still ongoing. **Conclusions:** The study's findings will be presented at the Marisiensis International Scientific Congress with the results.

Keywords: shoulder, SLAP, rehabilitation, glenoid labrum

EVALUATION OF STRETCHING EFFICIENCY ON JOINT MOBILITY IN YOUNG HEALTHY ADULTS

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Background: Joint mobility is a crucial component of physical health and sports performance. Stretching is a commonly method, used for improving joint mobility, yet its effectiveness among young adults is not fully understood.This technique involves the elongation and relaxation of muscles and soft tissues, aiming to increase the range of motion of joints and prevent injuries. Over time, stretching has become an essential component of warm-up and cool-down routines before and after intense physical activity. **Objective:** The aim of this study was to assess the effectiveness of stretching on joint mobility among young adults and to investigate the potential benefits of personalized stretching programs for improving health and physical performance in this age group. **Material and methods:** Our study included two groups. The experimental group consisted in 14 young healthy adults, who underwent a stretching programme, for 5 weeks, 2 days a week. The control group consisted in 14 young healthy adults who did not underwent any stretching or exercise program. Our research included two assessments: initial and final, through the help of a quiestionnaire and through active range of motion evaluation. **Results :** Data analysis revealed a significant improvement in joint mobility among the subjects who followed the stretching routine.Better posture and increased sport performance was also observed in the experimental group. Improvement was evident in the range of motion of knee, hip, and shoulder joints, as well as in the flexibility of the major muscle groups involved in movements such as flexion and extension. **Conclusions:** These findings suggest that regular stretching may be effective in enhancing joint mobility in young adults. Implementation of personalized stretching programs could have significant benefits for health and physical performance in this age group. Future studies could further explore various stretching modalities and their specific impact on joint mobility based on gender, level of physical activity, and other relevant factors.

Keywords: stretching, healthy young adults, range of motion, joint mobility

THE IMPACT OF UTILIZING TECHNOLOGICAL AND ROBOTIC SYSTEM LOKOMAT ON BALANCE REHABILITATION IN POST-STROKE PATIENTS

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Background: Stroke is a sudden disorder of brain function with signs of localized or total development, with symptoms that can last 24 hours or even longer, sometimes leading even to death. According to the World Health Organization statistics, stroke is one of the most common cause of death among adults in our country, as well as one of the most frequent cause of disability. Through modern medicine, we can benefit from robot-assisted therapy. Robotic systems have been developed to facilitate neurorehabilitation by providing key elements necessary to stimulate brain plasticity and motor rehabilitation, namely repetitive, intensive and adaptive training with feedback. One such robotic device is Lokomat®, which is used for restoring gait and balance in numerous neuromotor disorders, including stroke. Through the exoskeleton, Lokomat® provides total or partial support of body weight and actively or passively mobilizes the lower limbs of the patient, thus performing gait training, similar to walking on a treadmill. For balance rehabilitation, Lokomat® allows rotational and translational movements at the pelvic level. Robotic therapy is modified and adapted according to the needs and functional capacity of each patient, thus the training program is individually chosen, increasing the rate of progress for each patient. **Objective:** The main hypothesis we started with in conducting this research was that subjects undergoing combined rehabilitation treatment, through physiotherapy and robot-assisted therapy, show significantly advanced functional progress compared to subjects undergoing only classical physiotherapy programs. **Material and methods:** The study was conducted at Nova Vita Medical Center, from February 12th to March 29th, 2024, on a total of 20 subjects divided into 2 groups of subjects. The experimental group consisted of 10 subjects who underwent combined rehabilitation treatment, through physiotherapy and Lokomat®-assisted robotic therapy in the clinic, while the control group consisted of 10 subjects who underwent only classical physiotherapy. **Results :** Following the application of the Tinetti Test, Timed Up and Go Test, and the Walking Independence Index, it was found that patients who underwent robotic therapy showed better results during balance and gait assessments. **Conclusions:**

: Overall, our study shows beneficial effects of Lokomat® on balance recovery.The experimental group managed to achieve better results than the control group.

Keywords: Stroke, Lokomat, Balance, Rehabilitation

IMPACT OF MEDICAL REHABILITATION ON THE QUALITY OF LIFE AND SELF-ESTEEM OF PATIENTS DIAGNOSED WITH IDIOPATHIC SCOLIOSIS

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Background: Idiopathic scoliosis is described as a three-dimensional deformation of the spine in the frontal plane, often encountered more frequently in girls than boys, with a strong impact immediately after the onset of puberty. The ethiology of idiopathic scoliosis is unknown, but it is influenced by various factors such as hereditary or genetic factors, hormonal factors, environmental factors, nutrition, the body's growth process, and muscular and biomechanical imbalances. It is the most common form of scoliosis and typically becomes more severe as skeletal maturity approaches. **Objective:** Our main goal was to assess and investigate the impact of idiopathic scoliosis on the lifestyle and self-esteem of diagnosed patients. **Material and methods:** The research was conducted at the OrtoProfil Medical Center of Târgu Mureș, with a sample of 15 subjects, teenager girls, with the mean age of fifteen years old. Assessment of the subject included: evaluation of Cobb angle, Adam's and Bunell test. A questionnaire was also applied, and questions regarding the following aspects were asked: the impact of scoliosis on subjects lifestyle and self-esteem, Schroth therapy results and Cheneau brace feedback. **Results :** Results shows that subjects diagnosed with idiopathic scoliosis face different difficulties in everyday life, caused by negative feedback from society or classmates, Cheneau bracing disconfort, trunk structural changes, and other aspects. **Conclusions:** This study highlights the negative effects of idiopathic scoliosis on the self-esteem and lifestyle of patients. However, following medical rehabilitation, it was observed that structural changes diminish after just one intensive hour of Schroth therapy, proving to be highly effective when combined with daily bracing. To improve the quality of life for these patients and to help them better manage the psychosocial effects of their condition, it is essential to create appropriate support and care strategies.

Keywords: idiopathic scoliosis, self-esteem, Schroth therapy, medical rehabilitation

"THE IMPORTANCE OF DANCE IN THE PSYCHOMOTOR DEVELOPMENT OF PRESCHOOLERS"

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Background: Physical activity plays a crucial role in early childhood development. Among various forms of movement, dance stands out as a powerful tool for enhancing psychomotor skills in preschoolers. However, its therapeutic potential remains underexplored. **Objective:** This study aims to investigate the impact of dance on psychomotor development in preschool-aged children. By examining motor coordination, balance, reaction speed and overall growth. It wants to establish dance as a new alternative method in physical therapy, where something pleasant and attractive can be combined with something useful. **Material and methods:** First of all, the preschoolers will be randomly divided into two groups: one group will take part in the dance lessons, and the other group will not. To carry out this study, preschoolers were initially tested. The applied tests are tests that emphasize agility (Shuttle Run Test), reaction speed (Auditory Reaction Test), balance (Standing on one leg or walking in a straight line). These tests were applied to the two groups of preschoolers. The tests will be repeated both intermediately and at the end, so that a conclusion will be made about the evolution of the preschoolers. The dance classes will be built in such a way as to emphasize the psychomotor aspects previously mentioned in the tests. This study wants to demonstrate that the group that took part in the dance lessons has a much more visible evolution compared to the second group. The study period starts from March to June. **Results :** The findings reveal that dance positively influences various aspects of psychomotor development. Participants who took part in dance classes demonstrated improved gross and fine motor skills, increased body awareness and improved social interaction. In particular, the dance sessions facilitated emotional expression and creativity. **Conclusions:** Dance holds promise as an adjunct to traditional physical therapy approaches for preschoolers. Integrating dance into early childhood programs may foster holistic development, encompassing physical, cognitive, and emotional

dimensions.

Keywords: Dance, Preschoolers, Physical therapy, Psychomotor development

STUDY ON THE IMPACT OF STROKE ON ACTIVITIES OF DAILY LIVING

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Background: Currently, stroke represents a major concern both in terms of public health and medical research, characterized by a sudden disruption of blood flow, which can result from either a blockage or a bleeding within the brain, to certain regions of the brain, resulting in deprivation of oxygen. Like myocardial infarction for the heart, stroke causes local neural dysfunction, causing devastating effects on brain function. This condition ranks significantly in global mortality and morbidity statistics, representing a major cause of disability and death worldwide. **Objective:** This study's aim was to examine and evaluate the consequences of stroke on the performance of daily living activities. By analyzing these repercussions and identifying the factors involved, the goal was to obtain a comprehensive understanding of the intervention and therapeutic support required for post-stroke patients. Thus, this study aims to make significant contributions to improving management strategies and optimizing the quality of life for individuals affected by this neurological condition. **Material and methods:** The study was conducted at the Nova Vita Medical Center in Târgu Mureș, between February 2024 and May 2024, with a sample of approximately 25 subjects. The assessment was focused on the activities of daily living of patients, using questionnaires such as the Barthel Scale, modified Rankin Scale, and ADL Index. To assess patients' independence, tests such as the Wolf Motor Function Test and Berg Balance Scale were applied. For this research, we also used the following methods: bibliographic and observational analysis, complemented by data processing using statistical and graphical techniques. **Results :** Our findings indicate that most subjects experienced a significant decrease in their ability to perform daily tasks, as well as in their level of independence in carrying out these essential activities. **Conclusions:** Stroke profoundly affects patients' daily living activities and generates a series of damages and repercussions. The aim of our study was to highlight the impact on the daily lives of post-stroke individuals and to underline the effectiveness of therapeutic interventions in addressing these consequences. Occupational therapy and physiotherapy are just a few of the available modalities for alleviating symptoms and facilitating adaptation to post-stroke life. These therapeutic interventions not only provide solutions but also teach patients to manage and live with their new conditions, contributing to improving their quality of life despite the challenges encountered.

Keywords: stroke,, disability,, activities of daily living,, occupational therapy

THE IMPORTANCE OF PHISICAL THERAPY OF FLAT FOOT IN SECONDARY SCHOOL

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Background: The posture of the foot is very important in the proper functioning of the lower body and at the same time in acquiring a correct posture. **Objective:** The study aims to investigate flat feet among secondary school students (11-15 years old) and the relationship between flat foot, hypermobility, static and dynamic balance. **Material and methods:** In order to determine the flat foot, we took the footprints of each participant in the study, after which we calculated some indexes (Chippaux-Smirak index, Clarke angle and Stahelli index). We also used Beighton score to check the general mobility of the subjects. Anthropometric measurements were taken from each participating subject regarding height, weight, abdominal circumference and pelvic circumference. Thus we were able to calculate BMI and WHR for each study participant. To determine the static balance, we used the Sensamove balance platform, on which we performed 2 tests (Neuro muscular Control Test with visual control and without visual control, each lasting 20 seconds). For the assessment of dynamic balance we used a walking assessment, both with eyes open and eyes closed by using the BalanceGait Test app which uses a mobile phone fixed on the subject's waist. **Results :** Results will be presented during the Marisiensis International Scientific Congress because the study is still ongoing. **Conclusions:** The study's conclusions will be presented at the Marisiensis International Scientific Congress with the results.

Keywords: Flat foot, Balance, Hypermobility, Children

PRECLINICAL DENTAL MEDICINE

TOXICOLOGICAL ASSESSMENT OF BISPHENOL A RELEASED FROM DENTAL MATERIALS: A LITERATURE REVIEW

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Background: Bisphenol A (BPA) is a synthetic organic compound used as a monomer in the production of polycarbonates, epoxy resin and methacrylate. In dentistry, it can be released during the photopolymerization of dental materials. It is toxic at a certain level and it can influence or produce changes in hormonal activity, asthma, diabetes, obesity, behavior changes, cancer, infertility and genital malformations. **Objective:** The objective of this review is to assess data regarding the release of BPA from dental materials and its level in the human body as reported in the scientific literature. **Material and methods:** A review of the scientific literature was performed by searching PubMed database articles, based on the PRISMA guideline for systematic reviews. The key words used to search were "Bisphenol A resin composite toxicity", "Bisphenol A urine dental", "Bisphenol A toxicity dental", "Bisphenol A dental materials HPLC". The newest articles have been selected, between 2019 and 2023. **Results :** The database issued 98 articles. After the first selection we had 25 articles, after the second selection 16 relevant articles were included in the present review. The extracted datas were the materials and methods, the analysed period and the obtained results. Studies that analysed BPA through high-performance liquid chromatography (HPLC) were included. BPA levels were measured from saliva and associated with the use of dental composites and dental sealants. The amount of BPA increased after polymerisation from an average of 2 ng/ml to 35,5 ng/ml in 1 hour and it kept increasing with time. We found no relevant data in the literature regarding levels of BPA in the urine and blood. The studies conducted on specimens of dual cured resin cements did not detect BPA. On the contrary, the ones made on dental composites and compomers concluded that the amount of BPA increases in the first hour after application. The released BPA level depends on the photopolymerization method and it can be decreased by finishing and polishing. The amount of BPA released from dental composites has an average of 2-35,5 ng/ml. The problem that occurs is that the tolerable daily dose is 0,2 ng/kg of body. **Conclusions:** Based on the included studies, the amount of BPA released from dental composites depends on different factors and it has an average value bigger than the tolerable daily dose. The release is very high and it can cause changes in the body. BPA can be absorbed in the oral or gastrointestinal mucosa, which can produce systemic toxic effects.

Keywords: bisphenol A, dental materials, literature review, dental composite

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A COMPARISON OF ANTIMICROBIAL TOOTHPASTE WITH LOW ABRASIVE EFFECT USED FOR VENEERS

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Background: Saliva is crucial for defending the oral cavity naturally, primarily due to its composition of antimicrobial elements and diverse ions that serve as a buffer, regulating salivary pH within a neutral range. Maintaining a neutral salivary pH is essential because after eating, acidity levels plummet significantly due to the acid produced by food. This drop triggers the demineralization of teeth, a process that can be effectively managed through the buffering capacity of saliva and regular tooth brushing. **Objective:** The objective of this study was to assess the oral fluid's alkalinity following the use of specific toothpaste brands to compare their efficacy. Additionally, we examined whether PRANOYA toothpaste exhibits a greater antimicrobial effect compared to similar toothpaste varieties. **Material and methods:** The study comprised eighty participants, evenly divided into two groups: forty smokers and forty non-smokers. Five distinct toothpaste brands were evaluated, with each brand tested on eight smokers and eight non-smokers. Saliva samples were collected before and after tooth brushing using 1.5 ml containers. Upon collection, the pH of the saliva samples was promptly measured using pH test paper. **Results :** The pH test results indicate that each toothpaste increases salivary pH by 4-18%, with measurements falling within the range of 7.2-8.1. There was no statistically significant difference between different brands in increasing salivary pH levels. Additionally, it was observed that smokers exhibit slightly more acidic saliva compared to non-smokers. **Conclusions:** This study confirms that every toothpaste assists in alkalizing saliva, consequently mitigating the potential imbalance between demineralization and remineralization of dental hard tissues after exposure to acidic conditions. This mechanism significantly enhances cavity protection for the

teeth. Furthermore, Pranoya exhibits effectiveness as an antibacterial toothpaste, comparable to other brands tested in the study.

Keywords: toothpaste, antimicrobial effect, salivary pH

SURFACE ROUGHNESS CHANGES OF VACUUM-FORMED RETAINER MATERIALS AFTER DIFFERENT MECHANICAL CLEANING PROCEDURES

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Background: The use of various clear Vacuum Formed Retainers (VFR) is widespread, but there are no comprehensive guidelines on how patients should clean their retainers for optimal aging and plaque removal. Direct comparisons between methods and materials have not been performed. **Objective:** We examined the change in surface roughness of polypropylene (PP) and thermoplastic polyurethane (TPU) materials undergoing various cleaning protocols. **Material and methods:** We conducted a study among individuals who wear vacuum-formed retainers, to understand their cleaning habits. After summarizing responses, we created 4 cleaning groups: toothbrushes only, two different types of toothpaste with toothbrushes, and electric toothbrush with toothpaste. We chose to compare the cleaning protocols used by patients under in vitro conditions to eliminate changes caused by human factors. Samples of retainer materials: Copyplast C and Erkoloc-pro were vacuum-molded onto type IV dental stone models. A self-designed and self-fabricated toothbrush simulator was used for 30 days of brushing, 30s each day. Surface roughness (Ra) of the inner surface was measured using a Mitutoyo SJ-310 profilometer. Statistical analysis included ANOVA and t-tests. **Results :** The initial surface roughness between TPU and PP samples was not significantly different (p=0.199). Use of the Colgate Soft toothbrush alone had a significantly different effect (p=0.02) on the TPU and PP samples, with the TPU material showing a significant change in surface roughness (p=0.008). In addition, the Curaprox Soft toothbrush with Colgate Max White Optic toothpaste significantly altered the surface of the TPU samples (p=0.04). Interestingly, the Colgate Max White Optic toothpaste visibly discolored the TPU samples. The Colgate Soft and Medium toothbrushes combined with Elmex Caries Protection toothpaste significantly abraded the surface of the PP samples, with the TPU material being significantly more wear-resistant to the same protocol. Notably, using the Oral-B Pro3 Cross Action electric toothbrush with Colgate Max White Optic toothpaste showed a significant difference between the TPU and PP samples. **Conclusions:** Our results showed that different cleaning procedures affected TPU and PP retainer materials differently. TPU samples generally showed a decrease in surface roughness after most cleaning procedures, while PP samples showed an increase in surface roughness. Curaprox Super Soft and Soft toothbrushes with Elmex Caries Protection toothpaste are recommended for optimal cleaning, as they produce less wear than Colgate toothbrushes. Medium and electric toothbrushes and whitening toothpaste should be used with caution. These findings underscore the importance of cleaning method selection to maintain VFR material integrity and hygiene, thereby improving patient satisfaction.

Keywords: polypropylene,, thermoplastic polyurethane,, retainer,, tooth brushing simulator

EVALUATION OF THE MECHANICAL PROPERTIES OF WHITENING TRAYS BEFORE AND AFTER USAGE

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Background: The mechanical properties of whitening trays are important to ensure comfort and treatment effectiveness. These properties include flexibility, resistance to breakage and durability. The whitening trays need to be flexible enough to adapt optimally to the teeth, yet strong enough resistence to repeated use without deteriorating. Additionally, a good understanding of these properties can help avoid gums irritations or other dental issues associated with the use of whitening trays. **Objective:** This study aims to evaluate the mechanical properties (compression characteristics) of whitening trays under different usage conditions. The secondary objective was to examine alterations in tray parameters based on usage conditions, specifically immersion in whitening solution versus exposure to artificial saliva. **Material and methods:** Twenty-one vacuum-formed trays were be divided into three groups: one group immersed in artificial saliva with macrogols, another group treated with whitening solution, and a control group. After 35 hours of storage in sealed containers, the trays were

subjected to mechanical testing to evaluate any changes. An Instron testing machine was used to do a compresion test. The data was registered and analyse from the statistical standpoint. **Results :** Our results showed modified mechanical properties of all the 3 groups of tested trays. Difference of the compresive load was registered. **Conclusions:** Within the limitation of the present study, it can be stated that whitening solutions might modify the mechanical properties of the trays.

Keywords: mechanical properties, trays, whitening solution, artificial saliva with macrogols

CLINICAL DENTAL MEDICINE

DENTAL DYSCHROMIA. ETIOLOGY AND THERAPEUTIC OPTIONS.

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Background: Dental dyschromias represent a significant challenge in terms of dental aesthetics. Any deviation from the shade of bright white can be perceived as an anomaly, causing aesthetic discomfort and damage to self-esteem. It is remarkable how such a subtle characteristic as tooth color can have profound repercussions on the social and emotional dimension of an individual's life. **Objective:** The purpose of the study was to evaluate the etiology of dental dyschromia, the frequency and the establishment of some prevention measures. **Material and methods:** The study was carried out on a group of 85 patients, aged between 15 and 30 years, who underwent fixed orthodontic treatment at UMFST. The diagnosis was established by consultation, by visual and tactile examination with appropriate magnification and lighting. **Results :** Of the total group of 85 patients, 27 (36%) patients presented with WSL. Male patients represent more than half of the studied group (51%); The distribution of WSL by age and teeth categories shows that the 15-20 year old category has the highest incidence of white spot lesions. There is a correlation with increased consumption of acidic foods/beverages at this stage in life and with a more concise, rapid oral hygiene. From the point of view of WSL distribution on the dental arches, it was found that their number is higher in the maxilla (57%) compared to the mandible (43%). The distribution of dyschromias by tooth category shows that in the studied group the most affected are the incisors followed by the canines and premolars. Half of the WSL are located on the vestibular surface of the teeth. **Conclusions:** The application of brackets induces an increase in the volume of bacterial plaque, and the plaque has a lower pH than that found in patients without brackets, thus increasing the number of acidogenic bacteria. The prevention consists in: before applying brackets, the periodontal indicators are evaluated, a hygiene instruction is given and its compliance is verified at the controls, vicious habits are deconditioned and acidic drinks are avoided.

Keywords: dental dyschromia, white spot lesions, fixed orthodontic treatment, enamel demineralization

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ACCURACY OF DIGITAL AND CONVENTIONAL IMPRESSIONS – IN VITRO PILOT STUDY

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Background: Whether we are talking about digital or conventional impressions, their accuracy is essential in dental treatments. Most of the studies that assessed the "accuracy" of two models or datasets only compared them using a best-fit algorithm of 3D software. This approach only describes the discrepancy between the two models or datasets. However, it needs to provide more information on the accuracy of the impression technique itself due to the need for a proper reference. Best-fit algorithms compensate for errors throughout the jaw, minimizing mesh errors but not providing a proper reference. In order to analyze transfer accuracy in terms of trueness and precision of the method, a reference is mandatory. Therefore, a sound investigation using a proper reference under standardized conditions must address the limited amount of even partially contradictory data. **Objective:** The study aims to investigate the intraoral scanning system's transfer accuracy on full arch scans compared to conventional impressions. **Material and methods:** This study used ten mandibular artificial arches and a reference aid. The reference aid used in the study was a set of four high-precision bearing spheres positioned on the mandibular jaw's occlusal surface. These spheres were reversibly bonded with flowable composite. All models were scanned with a Dental Wings intraoral scanner, and conventional impressions were performed using a monophasic technique. The conventional impressions were cast with orthodontic dental stone. All digital and analog impressions were measured and compared with reference values. The statistical analysis was performed to assess if there is a statistical difference between reference aid and impressions. The statistical difference was set at $p < 0.05$. **Results :** The recorded results show that neither the digital nor the conventional impression was accurate along the entire dental arch length. The recorded results show that neither the digital nor the conventional impressions are accurate along the entire dental arch length. All obtained models presented statistical differences compared to references related to specific measurement points. **Conclusions:** Although intraoral scanners have improved over time, they still lack accuracy, especially for long-span distances. The conventional impression technique provides better results for long-span distances.

Keywords: Digital Impression, Conventional Impression, Accuracy, Transfer Aid

CBCT EVALUATION OF ALVEOLAR BONE AFTER ORTHODONTIC TREATMENT

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Background: For years there has been a long debate about the impact of orthodontic treatment on patients' periodontium. The questions to be answered are: is orthodontic treatment indicated for patients with periodontal conditions, does orthodontic treatment exacerbate or alleviate the conditions, what effect does orthodontic treatment have on the alveolar bone? Therefore, it is important to understand the effect of orthodontic forces on the alveolar bone. **Objective:** The main aim of this study is to evaluate the height of the alveolar bone at the buccal, lingual, mesial and distal levels of the central incisors, first premolars and first molar and the root length of the central incisors before and after orthodontic treatment. The secondary objective was to compare and correlate these parameters. **Material and methods:** Cone Beam Computed Tomographies (CBCTs) before and after orthodontic treatment of 50 patients were evaluated. Pre-treatment (T0) and post-treatment (T1) measurements at Alveolar bone level (ABL)were made by evaluating the distance from the edge of the buccal alveolar bone (B-ABL) to the enamel-cementum junction (CEJ), the edge of the lingual alveolar bone (L-ABL) to the enamel-cementum junction (CEJ), the edge of the mesial alveolar bone (M-ABL) at the enamel-cementum junction (CEJ), distal alveolar bone margin (D-ABL) at the enamel-cementum junction (CEJ) of the central incisor (CI), first premolar (1st PM) and first molar (1st M). For the anterior teeth, B-ABL and L-ABL measurements was taken in the sagittal plane, for the posterior teeth in the coronal plane; for the anterior teeth the M-ABL and D-ABL measurements was made in the coronal plane, for the posterior teeth in the sagittal plane. Measurements for root resorption was taken by measuring the length of the tooth from the cemento-enamel junction (CEJ) to the tip of the central incisor (CI) apex in the four quadrants. These measurements were made in the sagittal plane/cross section. Data was recorded in tables and statistical analysis was performed. **Results :** Changes in the alveolar bone level were recorded in the buccal and lingual segment of the incisors. At the level of premolars and molars the changes were less significant. Regarding the length of the incisors from the cemento-enamel junction to the apex, modifications were present in terms of reduction of the total length. **Conclusions:** CBCT evaluation is a valuable tool for precise measurements of alveolar bone levels and root length. However precise indication for use of this indication is required.

Keywords: alveolar bone height, orthodontic treatment, root resorption, CBCT

ASSESSMENT OF PAIN PERCEPTION IN THE INITIAL PHASES OF ORTHODONTIC TREATMENT WITH FIXED APPLIANCES

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Background: The International Association for the Study of Pain (I.A.S.P.) defines pain itself as an unpleasant sensory and emotional experience caused by or related to actual or potential tissue damage. Psychogenic pain, on the other hand, is considered to be pain arising from the concurrence of pure psychological factors strictly related to the person concerned or the environment in which he or she lives. Because pain is a predominantly subjective experience, it cannot be adequately assessed by indirect methods. **Objective:** To associate orthodontic manoeuvres with the intensity of pain perception in patients who have undergone fixed orthodontic treatment. The severity of pain was analysed in relation to common procedures: application of separating elastics, ring cementing, arch ligation, application of elastic traction. **Material and methods:** A sample of patients, good general health, were assessed during the first months of orthodontic treatment with fixed appliances. They completed a questionnaire to assess pain perception. The results were analysed with Microsoft Excel 2010 and SPSS software, and the statistical value was determined using Student's t-test and ANOVA test. The graphs used to illustrate the results included Pie, Line, Column, Bar, Doughnut in both 2-D and 3-D versions. **Results :** Pain intensity, measured on a large scale, with most patients reporting pain. The most painful period experienced was in the first days after treatment. Self-medication was associated with greater pain, and men generally reported more intense pain than women. Statistical tests confirmed significant differences between genders and between age groups. Pain intensity during orthodontic procedures varied, being greater for ring cementation and arch activation,

with olds having more intense pain. **Conclusions:** Pain in orthodontic treatment is an important risk factor and its management may involve the use of various methods, including verbal and non-verbal communication, anaesthesia and pain medication. In this study, the majority of patients reported moderate levels of pain. The most intense period of pain was during the first days after the application of fixed orthodontic appliances. The most painful procedure was ring cementing, especially among patients young.

Keywords: pain, orthodontic treatment, cementing rings, fixed braces

EVALUATION OF THE RELIABILITY AND REPRODUCIBILITY OF DIGITAL MODELS OBTAINED BY INTRAORAL AND DENTAL LABORATORY SCANNING METHODS

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Background: The interest in digital dentistry has increased, however, there has been a lack of thorough study to fully assess various types of scanners using the same set of criteria. Intraoral scanners generate a three-dimensional virtual representation of the oral cavity, whereas laboratory scanning is subject to multiple factors that can impact the precision of the collected data. These digital technologies significantly simplify work processes, improve the accuracy of prosthetic work, and elevate the quality of dental care. **Objective:** The study aims to compare five different intraoral, and four different dental laboratory scanners using a standardized set of criteria. The focus was specifically on their performance in accurately measuring alveolar bone resorption. **Material and methods:** Four plaster mandibular models were acquired from a simulated jaw with teeth 4.4 and 4.7 prepared with a full-rounded shoulder, with missing teeth (4.5, 4.6) and varying degrees of bone resorption (0, 3, 6, and 9 mm). The correspondent researcher performed a timed digital impression utilizing nine distinct scanners (Intraoral; Trios 3, Medit i700, Helios 600, iTero Element Flex, and Virtuo Vivo. Laboratory; 3Shape E3, Rexcan DS3 Silver, NeWay, and Medit T510). Models were scanned 5 times with each intraoral scanner. Using the obtained STL files, the discrepancies, trueness, and precision in measuring the distances between predetermined points were compared among the scanners using two analysis software. The data was aligned initially using a precise alignment order, refined after using the best-fit alignment approach. The discrepancies between measurements were documented and evaluated. Inferential statistics was performed using GraphPad Prism 8 software, using t-tests for detecting differences between groups. The level of significance was set at 0.05. **Results :** The 3D and 2D analyses showed a trend of greater distortion of the impressions in the molar region. Additional discrepancies were detected throughout the scans. The amount of error for each comparison was represented as a spectrum. Green indicating data within the tolerance threshold of 0.05. Scanning discrepancies were noticed in the resorption zone of the comparison models. Statistically insignificant differences in the measured distances were observed. The Rexcan DS3 Silver laboratory scanner showed the quickest scanning times, while Medit i700 the slowest. **Conclusions:** We observed significant differences in terms of scanning times. Our results reflected differences among scanning devices based on the assessed objective parameters and can aid clinicians in selecting the right scanning devices. Further research is required to analyze the accuracy of available scanners on the market.

Keywords: Intraoral Scanner,, Laboratory Scanner,, Accuracy,, Precision.

THE RELATIONSHIP BETWEEN COLOR, AESTHETIC PERCEPTION, AND THE MODIFICATION OF INCISOR INCLINATION

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Background: The smile, one of the most remarkable characteristics of the facial physiognomy, has a great influence on the social perception. The color is a basic component of the dental composition. **Objective:** This study evaluates the coloristic parameters and esthetic perception regarding the changes brought about by dental inclination. **Material and methods:** The studied sample consisted of 50 students with complete dentition and no lesions in the upper frontal group. Standardized lighting and positioning conditions were created for each subject. At skin level, the Frankfurt plane was marked. The neutral position of the patient's head was determined, chosen as the reference position (p0): the Frankfurt plane (0 degrees) and the bipupillary line parallel to the ground. To simulate orthodontic torque, the subject was asked to tilt their head posteriorly (+15 degrees) and then anteriorly (-

15 degrees) relative to the reference position p0. The Frankfurt plane was adjusted to correspond to the markings for to these degrees, resulting in two new positions, p+15 and p-15. Macro intraoral photographs corresponding to the three head angles (p0, p+15, p-15) were taken using a digital camera stabilized with a tripod with a three-dimensional rotating head and height adjustment. The photographs were imported into Adobe Photoshop for color analysis. Digital measurements were made in the CIELAB color space, which distinguishes color differences using three parameters (L*,a*,b*) and correlates them with the human eye's visual perception. The reference point was the middle of the vestibular face of the upper central incisor. The numerical values of color changes were compared using statistical tests in the OriginLab program. For the evaluation of aesthetic perception, an online questionnaire was conducted via Google Forms in which observers selected the most attractive photographs based on color perception. **Results :** The statistically significant regressions are as follows: those for the L* values in all three inclinations: anterior(-15 degrees), posterior(+15 degrees), total(-15, +15 degrees), as well as for the a* value (+15 degrees) and the b* value (-15, +15 degrees). With the head tilted anteriorly, the central incisors are retruded and appear darker and more yellowish, whereas with the head tilted posteriorly, the central incisors are protruded and appear brighter and more greenish. The values remain unchanged for the rest of the parameters. Following the questionnaire, 95% of the observers preferred the pictures in which the central incisors appeared brighter. **Conclusions:** Orthodontic treatments involving the application of torque forces to the upper incisor group produces changes in color perception.

Keywords: color, perception, torque, smile

ACCURACY OF ELASTOMERIC IMPRESSION, WASTE MATERIAL AND INDIRECT DIGITIZATION ACCURACY RELATED TO THE MIXING METHOD

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Background: While intraoral scanners have improved significantly in recent years, conventional impression techniques are still considered to provide high accuracy. Dentists and technicians have developed techniques to minimize errors and achieve precise impressions, resulting in well-fitting restorations. Indirect digitization is another method of converting oral structures into a 3-dimensional (3D) data format that a computer can process. This method involves scanning conventionally made impressions or stone casts using a laboratory scanner. The accuracy of indirect digitization depends on the accuracy of the impressions and casts. The manipulation of the impression material is one of the critical factors that influence the accuracy of an impression. There are four mixing methods: hand mixing with tubes or putty, cartridge delivery, and automatic mixing machines. The difference between manual and automatic mixing is an extensively researched topic, with less emphasis on the distinction between cartridge delivery and automatic mixing. **Objective:** The study aims to determine whether there are differences in the accuracy of elastomeric impressions and waste material between cartridge delivery and automatic mixing. Additionally, it aims to evaluate the accuracy of indirect digitization. **Material and methods:** The study used ten fully dentate mandibular reference models and a metallic reference aid of four bearing steel spheres. The spheres were reversibly attached to the teeth using a flowable composite. Each model was impressed with elastomeric material using two methods, namely cartridge delivery and automatic mixing. The impressions were then cast with type IV gypsum after a two-hour setting period. Cast stone models were scanned with a dental laboratory scanner. All digital and conventional models obtained were compared to the reference standard model using measuring software. The statistical analysis evaluated whether there were differences between models obtained with two mixing methods, digital models and reference. **Results :** The obtained results reveal that both mixing methods provide a great impression accuracy, however automatic mixing showed slightly better results. While the accuracy of the digital models is good, differences could still be observed when comparing the two to the reference model. **Conclusions:** Cartridge delivery and automatic mixing are two methods that are effective from the point of view of impression accuracy. An indirect digital model can be a good solution when the practitioner wants to benefit from digital dentistry.

Keywords: Elastomeric material, Conventional impression, Mixing method

TOBACCO - A MAJOR DETERMINANT OF DENTO-PARODONTAL DISEASE IN ASSOCIATION WITH OTHER FACTORS

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Background: The tabacco is know in history as a recreative or a curative plant, although it has well-known adverse effects as, cardiac or pulmonary disease, even a carcinogenetic impact. Also, in dental field, tobacco is associated with low salivary flow, bacterial plaque and tartar, carious processes, parodontitis and oral cancer. **Objective:** This study aims to appreciate the connection between biological and psycho-social factors in using of tabacco, to evaluate if socio-economical and demographic factors in association with tabacco can lead to oral disease, to observe the degree of dento-periodontal damage and also to highlight the possible complications related to single exposure of tabacco or in combination with other factors. **Material and methods:** This paper is a questionnair-type study, that includes a number of 130 subjects. The inclusion criteria is represented by tobacco consumers and the following characteristics are evaluated: age and gender, level of education, standard of living, age of starting regular smoking, the presence of general or dental conditions, the process of quitting smoking, the degree of losing teeth and dental sensibility, the presence of other smokers in familiy, the degree of oral hygene. **Results :** We have demostrated that tobacco is a major determinant of dento- periodontal disease, alone but also in association with poteating factors. We find that urban subjects are more prone to this harmful habit, resulting a much higher rate of loss of dental structures. Smoking is considered as important as procuring basic food, but more important than dental interventions. Women have a lower rate of quitting smoking compared to men. The act of quitting smoking also increase proportionally with age. People with a higher level of education were more likely to try to quit smoking. The subjects who have one/both parents who smoke, have a significant potential to start smoking before the age of 18. The link between gastro-esophageal reflux and smoking has been confirmed. The subjects with this pathology have an exponentially higher degree of dental sensitivity compared with ,,healty smokers". Tartar deposits are directly proportional with the number of cigarettes and the absence of teeth. We manage to prove the corelation between the degree of dental hygene and the occurrence of dento-periodontal pathology, which was inversely proportional. **Conclusions:** The goals of this study have been achived, but some aspects require a much more detailed analysis because of the large widespred of this practice and the considerable number of factors that can be associated with.

Keywords: TOBACCO, DENTO-PERIODONTAL, DENTAL HYGENE

THE USE OF DIGITAL TECHNOLOGIES IN THE RESTORATION OF ENDODONTICALLY TREATED TEETH

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Background: Recent years have seen significant advancements in dentistry, particularly with the integration of digital technologies. This has notably impacted the restoration of endodontically treated teeth (ETT). Digital technologies have revolutionized the approach to ETT restoration, offering enhanced precision, efficiency, and patient outcomes. This study dives into the diverse ways in which digital technologies contribute to restoring ETT. **Objective:** This study aims to assess the effectiveness of "one session dentistry" using chair-side CAD CAM systems in restoring endodontically treated teeth with significant substance loss. This approach offers medical and economic benefits such as preserving dental structures, eliminating intermediate appointments, enhancing precision, ensuring longevity, and saving time for both dentists and patients. The guided preparation technique ensures conservative treatment, removing only the affected tissues, determining preparation limits based on the lesion's extent, and adhering to bio-prophylactic cavity preparation principles. The study emphasizes the principles and advantages of contemporary tooth preparation methods. **Material and methods:** In our study 217 patients and 362 restorations were involved, from Dental Clinic Dr. Leahu - CORIDENT Sibiu. We used conservative methods in preparing the teeth and digital ways in restoring them. Following a vigorous protocol to achieve the best results. **Results :** Key findings include a higher prevalence of female patients, with treatments more common in those over 30 and less frequent in those over 60. Most patients received two restorations, with accidents

causing partial or total crown fractures occurring less frequently. The distribution of restoration types was relatively even, with endo-crown and endoVcrown approaches being twice as common as classic crowns. Ceramic materials were predominantly used for coronal restorations compared to zirconia. **Conclusions:** In conclusion, the adoption of digital technologies, particularly CAD CAM technology, offers significant advancements in dental practice, enabling streamlined workflows and enhanced quality, predictability, and ergonomics in endodontic treatments. The ease of preparation for endocrown and endoVcrown restorations, coupled with the accuracy of design software and milling systems, further enhances dentist confidence and patient satisfaction. Overall, the study underscores the transformative potential of digital technologies in revolutionizing endodontic treatments and restoration practices while prioritizing functional and aesthetic outcomes and maintaining periodontal health.

Keywords: endocrown, cad-cam, endodontic treatment, crown restoration

CROSS-SECTIONAL STUDY ON THE ORAL HYGIENE HABITS OF CHILDREN WITH INTELLECTUAL DISABILITIES AS REPORTED BY THEIR GUARDIANS

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Background: Studies have shown that children with intellectual disabilities often have poorer oral health and face challenges in accessing dental services. It is imperative to educate both them and their guardians on the importance of proper hygiene and regular dental visits. **Objective:** The survey was conducted to investigate the oral hygiene maintaince of children with intellectual disabilities compared to their peers. It aims to highlight differences in autonomy, hygiene, attitudes and satisfaction levels towards dental personal. **Material and methods:** In this cross-sectional study, a comprehensive questionnaire of both multiple choice and open questions was given to the legal guardians of sixty children aged 6-14; thirty of them with intellectual disabilities and thirty without. The questionnaire assed different parameters such as levels of autonomy, brushing and flossing frequency, dental check ups and overall satisfaction levels with the dental health care system. **Results :** Children with intellectual disabilities frequently need assistance during tooth brushing (96%) compared to their peers (36%). The main reasons for that are lack of motivation (70%) and inability to perform the correct brushing movements (56%). The study also highlighted that the assisting person often used incorrect brushing techniques such as angulating the toothbrush at a 90° angle to the teeth (43%). Dental visits were less frequent in the group of children with intellectual disabilities, as 36% of the respondents stated that their child's checkups were less than once a year, compared to 17% in the reference group. **Conclusions:** As children with intellectual disabilities often lack the intrinsic motivation or the dexterity to perform tooth brushing, it is imperative to properly instruct their caretakers how to maintain oral hygiene, including brushing, flossing and regular dental check-ups.

Keywords: intellectual disabilities, cross-section study, special needs

THE EFFECT ON SCANNING ACCURACY AND SPEED OF THE SCANNING STRATEGY

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Background: Digital impressions in the last few years have become more popular. The scan strategy in intraoral scanning refers to the pattern or movement the scanner follows during the scanning process. It determines the path and direction the scanner moves to capture the digital impression of the teeth and surrounding structures. The scan strategy can vary depending on the manufacturer and the specific scanner. Some common scan patterns include zigzag, occlusal-palatal-buccal, occlusal-buccal-palatal, and molar-to-canine. Among other factors, the scan strategy can affect the trueness, precision, and speed of the digital scan, and it plays an important role in the success of the scanning process. Several studies have been conducted to evaluate the accuracy and precision of different intraoral scanners and scanning strategies, and the recommended scan strategy by the manufacturer only sometimes resulted in the most accurate scans. **Objective:** The study aims to evaluate the accuracy and speed of two intraoral scanners according to three scanning strategies. **Material and methods:** This study used a metallic reference aid and ten fully dentate mandibular reference models (Dental Model PRO2002-UL-SP-FEM-28, NISSIN, Kyoto, Japan). The metallic reference aid consisted of four bearing steel spheres with a diameter of 5 mm, which were reversibly luted on the teeth of the lower jaw using a flowable composite. The spheres were positioned

using the metallic reference aid. The reference aid served as a reference dataset for the transfer accuracy analysis of the digital and conventional impressions. After luting the bearing steel spheres, the mandibular models were scanned with Dental Wings and EVO I.O.SCAN intraoral scanners using three scanning strategies. The scan patterns were chosen for the study based on the operator manuals for each scanner. All experimental scans were compared to the reference standard model using a measuring softwear. The statistical analysis evaluated if there were statistical differences between the accuracy of the scanners according to the scanning strategy and between the accuracy of each scan strategy involved in the study. **Results :** The study comparing the trueness and precision of two intraoral scanners with various scan patterns found that the scan patterns influenced the accuracy ($p<0.05$) and speed of the scanners. **Conclusions:** This study concluded that a scanning strategy is essential to obtain a digital impression close to the reference model.

Keywords: digital impression, scan strategy, accuracy

EVALUATION OF MAXILLARY BONE IMPROVEMENT AFTER SINUS LIFT AUGMENTATION USING CBCT IMAGES.

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Background: The posterior maxilla is often characterized by insufficient quantity and quality of bone to support dental implants. After Brånemark a minimum of 5mm in width and 10mm in hight of bone availability are required for implant insertions. If inadequate bone is available to successfully place an implant, maxillary sinus augmentation can be used for improvement of bone volume. **Objective:** The aim of the study was to evaluate the improvement in bone quality and quantity in the maxillary first molar region after sinus lift augmentation, based on CBCT images. **Material and methods:** The study was performed for all the patients in the same private clinic in Târgu Mures through CBCT images. A total number of 25 patients (10 females and 15 males) aged between 24 and 63 years were included in the study. For each patient an open maxillary sinus lift surgery was done using local anesthesia at maxillary first molar region. Bio-Oss (Geistlich, Wolhusen, Switzerland), a xenograft of bovine matrix origin (granules 1-2mm) was used for bone augmentation and a Lyoplant membrane in order to protect the schneiderian membrane. Nonresorbable monofilament sutures (Dafilon blue 4/0) were used to close the flap. Healing period for all the patients was 6 months. On CBCT images we measured height, width and density before surgery and after 6 months. All the measurements were done using Ondemand comunicator program. Data were collected using Microsoft Excel and statistical analysis was made. **Results :** The analysis outcome showed that the best bone quality, for implant insertion, after the 6 months healing period was reached in patients who had at least 4mm of bone height before surgery. **Conclusions:** Differences found in the bone availability can be correlated with the sinus size, the extension of the sinus pneumatization, past related pathology and blood supply of the region. In conclusion, although we have improvement of bone quality after augmentation and data results from the CBCT images, which are the most accurate compared to other investigations, we should always be careful with implant placement, since these are virtual parameters and once the first pilot hole is performed the whole perspective of surgery could change.

Keywords: #Maxillary sinus, #Augmentation, #CBCT, #Bone values

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CORRELATIONS BETWEEN FIXED ORTHODONTIC TREATMENT AND GINGIVAL RECESSION

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Background: Gingival recession is a prevalent issue observed in the field of dentistry. The phrase gingival recession refers to the displacement of the gingival margin towards the cementoenamel junction, causing the root surface to become exposed. Gingival recession can be caused by various factors, including inflammation, calculus, improper brushing, and occasionally even orthodontic treatment. **Objective:** In this study, the primary objective is to establish an association between fixed orthodontic therapy and gingival recession. By following to this objective, we will also push to comprehend the underlying reasons for the occurrence of gum recession following orthodontic treatment. Additionally, we aim to identify any significant differences in patients with different Angle classes of malocclusion who begin treatment, determine the specific treatment in which gum recession is more likely to

manifest, and identify any disparities between genders. **Material and methods:** The study's sample consists of 120 patients aged between 12 and 25 years who undergone fixed orthodontic therapy. The individuals examined in this research underwent orthodontic intervention, namely within a period of 5 to 3 years, and presented for a follow-up examination within the previous 2 years. 53 of the individuals analysed in this study are males and 67 are females. At the start of orthodontic treatment, we recorded the initial Angle class of malocclusion for each patient, along with any occurrence of crowding and its level of severity. One additional significant factor that we have chosen to record relates to whether the patients received any extraction operation to create room for addressing the crowding issues, as well as whether intraoral elastics or removable headgear were utilized in the treatment to rectify the malocclusion. We considered as gingival recession at least a CAL of 3 millimetres, to eliminate any instance of incipient gingival recession. **Results :** Following orthodontic treatment, a total of 32 individuals exhibited indications of gingival recession. The sample of 32 patients was divided into 7 groups based on various factors, including different types of malocclusion, the application of intraoral or extraoral forces, varying levels of crowding, and the use of extractions to address this issue. The common factor among all 7 groups is that gum recession was consistently caused by displacement of the teeth outside the basal bone due to fixed orthodontic therapy. **Conclusions:** This study proves the relationships between fixed orthodontic treatment and gingival recession. Physicians worldwide should be conscious of the possibility of gum recession during fixed orthodontic treatment and make efforts to prevent such problems.

Keywords: Orthodontic treatment, GIngival recession, tooth movement

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CLASSIFICATION AND PREVALENCE OF DENTAL SURFACE DEFECTS IN AREAS OF GINGIVAL RECESSIONS

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Background: In literature there is a positive correlation between the appearance of gingival recessions and the prevalence of root caries, abrasions and abfractions. This increasing whenever a periodontal disease is present and following some patterns on the patient's lifestyle. Gingival recession represents a major concern for the patient, especially from the esthetic point of view but also for the symptoms that can be associated. Patients presents every day to the dental office, complaining about recessions therefore it is imperative to study and better understanding this topic **Objective:** Study the prevalence of dental surface defects in gingival recessions and categorize them using Miller's Classification system. As dental surface defects the presence of abrasion, root caries and tartar was taken into consideration. **Material and methods:** Determine with a clinical examination the Miller's Classification for each gingival recession, presence (A) or absence (B) of CEJ (Cemento-enamel junction) and presence (+) or absence (-) of dental surface discrepancy caused by abrasion (step). Four classes (A+, A-, B+, and B-) will be identified on the basis of these variables. The classification will be used on minimum 200 gingival recessions to examine the distribution of the four classes and presence or absence of root carious lesion. Evaluation of patient's lifestyle and habits will be evaluated through a questionnaire **Results :** The majority of the examined cases showed the presence of the CEJ associated with the absence of a step ($p=0.0228$). The absence of the CEJ without the step it was the most uncommon amongst groups. On first place were situated the gingival recessions of Miller's Class I ($p<0.034$) and on the last place were the gingival recessions of Miller's Class II ($p=0.0008$). **Conclusions:** There was a higher incidence of the presence of CEJ associated with the absence of a step, while the least common association is the absence of the CEJ without the step. Gingival recessions of Miller's Class I are the most prevalent in all age groups. The presence of periodontitis has been found positively correlated to the presence of dental surface defects.

Keywords: Gingival Recessions, Class Miller, Periodontitis

THE USE OF PLASMA RICH IN GROWTH FACTOR IN DENTAL IMPLANTOLOGY: A COMPREHENSIVE REVIEW OF APPLICATIONS AND CLINICAL OUTCOMES

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Background: Plasma rich in growth factor (PRGF) was created by the BTI Biotechnology Institute PRGF®-Endoret Technology to concentrate autologous whole blood into a plasma that is high in growth factor and

cytokines. These factors stimulate several biologic functions such as angiogenesis, proliferation, and differentiation. The use of autologous platelets has shown to increase tissue differentiation and accelerate the osseointegration of dental implants through bone apposition. Plasma rich in growth factor also aids in reducing post-inflammation with its anti-inflammatory properties. With a significant decrease in overall inflammation there is lead to successful healing conditions which promote the complete success of implant osseointegration. The PRGF technique has also been coined as a patient specific treatment and has eliminated the chances of patient reactions and complications associated with foreign substances. Faster recovery and improved patient experience are also solid benefits when using plasma rich in growth factor. **Objective:** This study aims to adequately investigate the process, outcomes, benefits, and drawbacks used in the application of plasma rich growth factor in dental Implantology. Patients were examined after using PRGF in preparation for and during dental implant interventions. **Material and methods:** For this study the step-by-step process of PRGF harvest was documented using guidelines, materials and patients obtained from the Dr. Leahu -Corident, Sibiu dental clinic. **Results :** Implant therapy is a predictable treatment which usually has excellent long-term results. When teeth are lost the alveolar process undergoes dimensional changes. The extent of these changes influences the overall comprehensive treatment planning. Plasma rich in growth factor has been used to assist with bone and tissue healing along with bone regeneration around implants. The biologic properties of PRGF use autologous platelet- derived growth factors to stimulate many biologic functions such as angiogenesis and proliferation. Each of the cases observed showed that there were considerable amounts of bone maintenance and formation, no post surgical infections, minimal inflammation, osseointegration and overall healing time was shortened. In the case where plasma rich in growth factor (PRGF) was used in post extraction for alveolar ridge preservation there were major improvements in the ridge and socket area. All cases were obtained from Dr. Leahu-Corident clinic, Sibiu through Dr. Angelica Oprea. **Conclusions:** In conclusion, plasma rich in growth factor (PRGF) showed promising outcomes in promoting tissue regeneration, wound healing and osteointegration capabilities. This study confirmed that there is usually a higher rate of success in implants when used in conjunction with plasma rich in growth factors, than without.

Keywords: PRGF, Implantology, Osseointegration

THE IMPORTANCE OF THE HELKIMO INDEX IN ASSESSING TMJ INVOLVEMENT IN DENTO-MAXILLARY ANOMALIES

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Background: Dento-maxillary anomalies are characterized by changes in the size, shape, position and inclination of the morphological elements that make up the stomatognathic system. Recent studies demonstrate the fact that not only traumatic occlusion (OT) is the etiological factor of TMJ dysfunction. Created by the M. Helkimo in 1972 to investigate the prevalence and severity of signs and symptoms of temporomandibular dysfunction. **Objective:** The aim of the study was to evaluate the prevalence of TMJ pathology using the Helkimo's index in patients in the Orthodontic department with clinical examination and anamnestic data. **Material and methods:** The study was carried out on a group of 78 patients from the belong to Orthodontic department case with various dento-maxillary anomalies and TMJ suffering. We statistically processed the data obtained from the clinical examination, in order to analyize the situation of patients with temporomandibular dysfunction compared to that of patients without joint disorders at the time of the initial examination. **Results :** Most patients with class II/2 anomalies: 42.86% presented an anamnestic index of I, and a percentage of 20.69% had a Helkimo anamnestic index of II. So with this type of anomaly, the patients indicated obvious signs of TMJ dysfunction. The Helkimo anamnestic index had the highest scores in the II/2 Angle anomaly in the female sex, followed by class II/1 Angle anomalies in the male gender. **Conclusions:** The most important examination in the case of TMJ pathology is represented by the thorough clinical examination. There is a directly proportional relationship between the degree of severity of the malocclusion and the Helkimo index points.

Keywords: Helkimo index, Anomalies, TMJ dysfunction, Orthodontic

SMILE RESTORATION BY MEANS OF ANAPLASTOLOGY

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Background: Traumatic defects resulting from resections, accidents or congenital defects, corrected with the help of Anaplastology. Whenever these defects cannot be corrected by conventional surgery, an Anaplastologist is needed. The effects of the resulting deformities are placing the patient in a delicate situation due to the fact that the absence of an area of the face (nose/eye/ear) hinders the social reintegration of the patient starting from that moment. **Objective:** Improving the aesthetic appearance of a patient with an eye defect by making an oculopalpebral epithesis. Although the epithesis is considered a medical device by replacing an organ/tissue, it does not replace the function of the respective organ. The importance is given by the impactful effects of restoring the integral appearance. The case study refers to a patient with a left ocular maxillary defect (retinoblastoma), operated during childhood around the age of 6, by enucleating the eyeball. At that moment, plasticity of the defect was performed by facing the upper eyelid with the lower one. The aim is to restore the periorbital tissue by making an oculo-palpebral epithesis. **Material and methods:** All the production stages are specific to the production of dental prostheses by conventional methods. The stages are followed from layout to the last stage by specific dental techniques. As steps to follow there is to mention: impression with alginate, casting a model in plaster, the wax-up, packing in plaster to obtain moulds, successive steps castings i to obtain the final epithesis. As materials : Special silicone for soft tissue prostheses, medical grade resistant to bacterial growth and is hypo-allergenic to prevent irritation. Natural pigments and other powders and additives in order to reach the flesh tones and texture A series of dental materials with proven biocompatibility used in conventional dental technique and orthodontics, orthodontic transparent acrylate for the transparent lens of the iris, and white for the sclera; dental pigments to obtain special effects in the colors of the iris and sclera. Retention was achieved with the help of a removable adhesive , also biocompatible. **Results :** An oculopalpebral epithesis with satisfactory aesthetic integration similar to the natural one. The tissue and the eye colours are similar to the natural ones. **Conclusions:** Although it is a prosthetic device with an aesthetic role but non-functional , restoring the patient's aesthetic appearance contributes to improving the patient's quality of life. It also restores a smile, somehow similar to a dental technician.

Keywords: Anaplastology, Face reconstruction, Non surgical esthetics, Dental Technician methods

EXPLORING BEHAVIOUR GUIDANCE METHODS AND TECHNIQUES IN PAEDIATRIC DENTISTRY

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Background: Managing behavior in pediatric dentistry is crucial for successful dental treatment and patient comfort. With a growing emphasis on minimizing stress and anxiety for young patients, pediatric dentists increasingly rely on a blend of pharmacological and non-pharmacological behavior guidance techniques to facilitate dental procedures and ensure positive experiences. **Objective:** This study aimed to explore the prevalence and efficacy of behaviour guidance techniques among paediatric dentists, focusing on both pharmacological and non-pharmacological methods. The objective was to identify trends in usage based on dentist experience, patient characteristics, and the perceived effectiveness and challenges of these techniques. **Material and methods:** A comprehensive questionnaire was distributed to 150 paediatric dentists with varying levels of experience. The survey included questions on familiarity with, and frequency of use of, behaviour guidance techniques, as well as perceived effectiveness, challenges, and training received. Statistical analysis was performed using IBM SPSS Statistics, with significance set at $p<0.05$. **Results :** Of the respondents, 75% reported a high familiarity with non-pharmacological techniques, with Tell-Show-Do (82%), positive reinforcement (76%), and distraction (69%) being the most commonly used. Pharmacological methods were employed less frequently, with 40% of dentists not using them at all. Among those who did, nitrous oxide was the most popular choice (60%). The use of restraint or protective stabilization was rare, with 90% of respondents using it "Rarely" or "Never". Dentists with over 10 years of experience were more likely to use a broader range of techniques and reported higher effectiveness in managing paediatric patients' behaviour. Challenges identified included parent resistance, especially towards pharmacological methods, and difficulty in managing highly anxious children. Training in

behaviour guidance techniques during dental education was positively correlated with confidence and diversity in technique usage. **Conclusions:** Non-pharmacological behaviour guidance techniques remain the cornerstone of paediatric dental practice, with a strong emphasis on Tell-Show-Do, positive reinforcement, and distraction. Pharmacological methods are less frequently used, reflecting a cautious approach to their application. The study highlights the need for enhanced training in behaviour guidance techniques within dental education and continuing professional development, to equip dentists with a wide array of effective strategies for managing paediatric patients. Further research into parent perceptions and acceptance of these techniques could inform better communication strategies and increase treatment cooperation.

Keywords: Behaviour guidance, Dental anxiety, Children

COMPARATIVE ANALYSIS OF CEMENTATION TECHNIQUES OF FIXED DENTAL PROSTHESES BETWEEN ROMANIA AND TURKEY

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Background: The success of fixed dental prostheses, such as crowns and bridges, depends on the use of the right dental cement. Dental cementation is not only responsible for adhesion but also plays a vital role in preventing microleakage, increasing mechanical retention, and ensuring long-term success of the prosthesis. With advancements in dental materials science, there are various types of cement available, each with unique properties and applications. Since dental practices differ globally, it is essential to explore how different regions use these materials to optimize patient outcomes. **Objective:** This study aims to compare cementation techniques of fixed dental prostheses between the Faculty of Dental Medicine in Romania and Turkey. The focus is on material selection, application protocols, and clinical outcomes. This comparison highlights procedural nuances, potential areas for standardization, and opportunities for improving clinical practices in dental prosthetics. **Material and methods:** This study presents a comparative analysis of clinical cases from the Faculty of Dental Medicine in Turkey and Romania. It details the specific cementation protocols used for various types of fixed dental restorations, including single crowns, bridges, and implant-supported prostheses. This comparison offers insights into each technique's effectiveness, aesthetics, and patient outcomes. **Results :** The Faculty of Dental Medicine from Romania preferred glass ionomer cements due to their ease of use, fluoride release, and chemical adhesion to the tooth structure. This preference aligns with the findings of previous studies highlighting the popularity of glass ionomer cements in Europe for their biocompatibility and preventive qualities. Conversely, Turkey preferred zinc phosphate cement. **Conclusions:** The study findings suggest that despite geographical and cultural differences, the principles of selecting and applying dental cement remain universal. However, specific preferences and techniques can significantly vary, influenced by local clinical practice standards, material availability, and clinician experience.

Keywords: cementation protocol, fixed prosthetic restoration, cementation materials

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THE FREQUENCY OF BOLTON DISCREPANCY IN DIFFERENT TYPES OF DENTAL MALOCCLUSIONS IN A CENTRAL ROMANIAN DEMOGRAPHIC SAMPLE

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Background: Bolton recognised the need of maintaining a balanced connection between teeth in the same arch and between arches. His investigation focused on the ratio of the mandibular and maxillary teeth's total mesiodistal widths and came to the conclusion that a precise number for these ratios must exist in order to establish an optimal occlusion. The 'Bolton Index' is a standard research instrument used to illustrate tooth size disparities and indicate the types of dental corrections required to achieve the optimal occlusion. **Objective:** The aim of this research is to investigate any potential correlation between the evaluated Bolton discrepancies and the presence of dento-maxillary abnormalities. **Material and methods:** In total, 100 models from patients were included (50 males and 50 females) containing samples from all categories of malocclusion (Class I-38 models, Class II/1-19 models, Class II/2-33 models, Class III-10 models) before receiving any orthodontic treatment. By using the calculation formulas, the anterior Bolton index and the total Bolton index were determined for each model by measuring the mesio-distal diameter of the six maxillary and mandibular anterior teeth and the mesio-distal diameter of the twelve

maxillary and mandibular teeth (from first molar to first molar). They were then separated into classes, and one-sample t-Student's test was employed for the statistical analysis. **Results :** The findings showed that among the subjects with class II/1 (anterior p=0.046, total p=0.039), class II/2 (anterior p=0.000000123, total p=0.004), and class III (anterior p=0.000313, total p=0.00000217) of malocclusion, there is statistical significance ($p<0.05$) for both the anterior and total Bolton indexes. In contrast, we found that the anterior and total Bolton indexes of the participants included in class I of malocclusion do not have a statistically significant relationship ($p>0.05$) (anterior p=0.071, total p=0.932). **Conclusions:** Based on the results, the participants who have dental malocclusions also exhibit a Bolton discrepancy. This suggests that the Bolton indicators have an impact on the incidence of malocclusions in addition to other etiological factors. As a result, the Bolton analysis has diagnostic significance and needs to be taken into account when creating a treatment strategy.

Keywords: Anterior Bolton index, Total Bolton index, Malocclusion, Central Romanian population

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ASSESSMENT OF IMMEDIATE POST-EXTRACTION IMPLANTATION PROCEDURES FROM CLINICAL AND RADIOLOGICAL PERSPECTIVE: A NARRATIVE REVIEW

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Background: Nowadays, there are various treatment options available for all kinds of edentates, one of which is the implant-prosthetic one. There are requirements that must be met in order to select the best option. One surgical technique, quick post-extraction implant implantation, has gained popularity recently despite being controversial. **Objective:** This narrative review aims to make a comparison regarding different techniques of surgical approach to implanto-prosthetic restorations. The most used and up-to-date implant surgical procedures will be discussed: postextraction implant insertion without bone addition, implant insertion with guided bone regeneration (GBR-Guided bone regeneration), socket-shield technique and immediate dento-alveolar restoration (IDR-Immediate Dentoalveolar Restoration). **Material and methods:** With the terms implant, surgery, and post-extractional, electronic searches were performed in PubMed and Embase to gather information for this study. Included were only original prospective longitudinal studies conducted up until 2020. **Results :** Several studies have demonstrated that single-surgery therapy regimens allow for highly predictable effective outcomes and are less traumatic. Prior to implant implantation, bone deficiencies can be corrected predictably with guided bone regeneration (GBR) for both vertical and horizontal bone development; however, different methods have varying clinical outcomes. In the maxillary and mandibular regions, GBR in conjunction with a combination of autogenous and xenogeneic grafts in the form of particles and i-PRF has been shown in certain trials to be effective for both vertical and horizontal bone growth, providing enough bone gain for the implantation of future implants. **Conclusions:** An important component of success from a cosmetic and functional standpoint is the appropriate treatment of the soft tissues and bone in the post-extraction sockets. Selecting the right method will enable the implantation of a temporary crown, which is a common request from patients.

Keywords: implant, surgery, post-extraction, radiology

DOES GENDER PLAY A ROLE, IN THE OUTCOMES OF BOTULINUM TOXIN (BOTOX) TREATMENTS , FOR BRUXISM ?

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Background: Bruxism, characterized by the involuntary clenching or grinding of teeth, occurs both during wakefulness and sleep. Its prevalence ranges from approximately 10% to 20% within the population, exhibiting varying degrees of severity.Botulinum toxin (Botox) is recognized as a remedy for bruxism when administered into the masseter muscle. Numerous studies have explored the use of Botox for this purpose. **Objective:** The objective of this study was to evaluate the efficacy of administering Botox in the masseter muscle and determine if it produces comparable outcomes in both female and male patients. **Material and methods:** In this study, we had a total of 20 patients aged between 21-25, consisting of 10 women and 10 men. These patients were experiencing bruxism-related symptoms such as masseter muscle pain and tooth sensitivity. We used RDC_TMJ criteria to exclude certain patients from the study. Panoramic radiographies were taken for all patients. The participants were

divided into two groups based on gender, and both groups underwent Botulinum toxin injection treatment to see if it could alleviate their symptoms. We also took the patients' history into account and followed up with them after the treatment to check if they still had any pain or discomfort. **Results :** The onset of the botulinum toxin effect was observed to be 3.7±0.82 for the women group and 3.1±0.73 for the men group. We found a significant difference in pain scales before and after treatment ($p=0.048$ and $p<0.05$). There was also a significant improvement in discomfort levels before and after the treatment . **Conclusions:** According to the available statistics we worked on , this procedure has demonstrated a high level of effectiveness and is considered one of the most advantageous minimally invasive treatment options. It has shown promising results in a relatively short period of time when used to treat patients with bruxism. Even though this procedure is generally effective, it might not work for everyone due to various factors. Out study have shown that females tend to have a higher likelihood of experiencing more positive outcomes from the treatment.

Keywords: masseter muscle, bruxism, botulinum toxin, teeth grinding

PHARMACY

GLP-1 ANALOGUES AND OBESITY – FROM MEDICAL USE TO DIVERSION AND DRUG ABUSE

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Background: GLP-1 analogues are drugs recently introduced in the treatment of type 2 diabetes which, in addition to decreasing insulin and glucagon secretion, exhibit cardioprotective effects. In addition, they delay gastric emptying and produce anorexia through a central mechanism. Recently, some of these compounds have received marketing approval from the FDA and EMA for the treatment of obesity. Due to their therapeutic success, these compounds are often misused, without medical recommendation, diverted from their therapeutic use, counterfeited or sold on the black market. **Objective:** This study aims to highlight the risks associated with the misuse or use of adulterated or counterfeit GLP-1 analogues as well as to emphasize their inadequacy on the market for patients who are in fact diagnosed with type 2 diabetes and are in urgent need of this therapeutic class. **Material and methods:** A literature search was carried out on the potentially dangerous risks of misuse of GLP-1 analogues using the databases PubMed, Science Direct, Scopus, Web of Science with keywords: "GLP-1 analogues", "obesity", "misused drugs", "side effects". **Results :** The relevant analysis of the articles was corroborated by the warnings issued by the competent authorities (FDA, EMA) concerning the diversion of drug treatment or its use outside the medical context. The risks of such use and reports of counterfeit products from the black market are presented. Among the most significant risks presented are pancreatitis, gastroparesis, kidney failure and abdominal pain. Medical diversion sometimes deprives people with type 2 diabetes of their legitimate access to medications, which, in this way, cannot properly regulate their blood sugar levels and often end up in serious condition due to the ineffectiveness of other drugs. **Conclusions:** The analogues of GLP-1 are victims of their own therapeutic success. Their utilization outside the medical cadre or official indications presents risks, and the source of obtaining it is not always legal.

Keywords: analogues of GLP-1, obesity, diverted drugs, counterfeit drugs

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OPTIMIZING AMIODARONE HYDROCHLORIDE SEMISOLID FORMULATIONS FOR CARDIAC THERAPY

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Background: Since their initial discovery in 1960, gels have known a flourishing rise in the field of semisolid formulations. Their unique structure and characteristics have prompted scientists to further expand their knowledge and find novel ways to provide treatment for patients. **Objective:** This study aimed to develop different formulations of amiodarone bigels that combine properties of both hydrophilic and lipidic components and can be designed for topical application to avoid the side effects produced by oral administration. Provided that amiodarone can be found in the second bio-pharmaceutical class, its lack of solubility determined the usage of this biphasic form as a vector for drug delivery. **Material and methods:** During the preformulation study, multiple concentrations were tested, resulting in the preparation of oleogels using sunflower (SFO) and almond oil (AO) containing either beeswax (BW) or carnauba wax (CW) as gelling agents. Carboxymethyl cellulose (CMC) and Carbopol 940 (CBP) were the polymers used to develop a hydrogel. Combining the two phases was possible by adding emulsifiers such as cholesterol, Tween 80, and Span 80, using an automated mixing device (unguator). The six formulations obtained were then subjected to texture analysis, consistency test, rheology, and microbiological evaluation, while the amiodarone concentration was determined using a UV-spectrophotometric method. **Results :** Due to their high oil concentration and predisposition for separation, the gels with CW and SFO (ABG3, ABG4, ABG5) did not pass the stability tests and were thereby excluded from the study. ABG6 (BW, AO, CMC 3.5%) was significantly more fluid than the other formulations, which presented a more solid, cream-like consistency. However, the spreadability was optimal, a fact also shown through extensometry: 2163.8(+/-)58.3 mm^2 for ABG6, 1734.06(+/-)0.0 mm^2 for ABG1 (BW, AO, CMC 5%), and 2122.54(+/-)0.0 mm^2 for ABG2 (BW, AO, CBP). ABG2 and ABG6 presented a thixotropic pseudoplastic flow, while ABG1 had a thixotropic flow. The texture profile analysis generated the highest values for ABG6 regarding hardness (0.94N) and resilience (0.079). The cohesiveness values for the three gels were in the range of 0.55 (ABG2) and 0.72 (ABG6). The concentration of amiodarone was 1.43(+/-)0.26 g% for ABG1, 1.35(+/-)0.16 g% for ABG2 and 1.49(+/-)0.06 g% for ABG6. Furthermore, there was no contamination

found during the microbiological examination using Chapman, Sabouraud, and Agar mediums. **Conclusions:** Based on the determinations carried out, the aforementioned types of preparations are suitable for amiodarone incorporation. While the concentration between the two phases should further be investigated, the underscored characteristics recommend them for amiodarone bigels manufacturing.

Keywords: Amiodarone hydrochloride, bigels, texture analysis, pharmacotechnical evaluation

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DEVELOPMENT AND CHARACTERIZATION OF NEW HYDROGEL FORMULATIONS FOR THE TREATMENT OF PAIN AND INFLAMMATION

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Background: Cutaneous administration is one of the preferred routes for local administration of therapeutic agents especially in pain and inflammation associated with musculoskeletal disorders. The development of hydrogels as semisolid drug delivery systems has increased the attention of researchers considering their easy administration and optimal pharmacological effect. **Objective:** This study aimed to prepare and evaluate the pharmaco-technical properties of new hydrogel formulations based on synthetic polymers ($Carbopol_{940}$ and $Carbopol_{980}$) that deliver diclofenac sodium (the active pharmaceutical ingredient - API) through the skin. **Material and methods:** Two series of hydrogels were prepared: a series of four hydrogel bases in which the type and concentration of gelling polymer were varied (B1-3% $Carbopol_{940}$, B2-2% $Carbopol_{940}$, B3-3% $Carbopol_{980}$, B4-2% $Carbopol_{980}$), and a series of four formulation F1-F4 in which 5% w/w API was incorporated. The physicochemical evaluation of the prepared hydrogels included visual evaluation (macro- and microscopically), pH (potentiometric method), rheological properties (Rheotest RV viscometer), spreadability, and texture analysis (Texture analyzer TX-700). For permeability analysis, a UV-Vis Spectrophotometric method (276 nm) was applied using a Mullerman cell, a synthetic membrane (cellophane), and a phosphate buffer solution pH=6.8 (32°±0.2°C) as a receiving medium. **Results :** All the obtained formulations were homogeneous, without air bubbles and particle agglomerations. The pH ranged between 5.1 for B3 and 7.2 for F2, which is within the limits allowed by the official rules (Ph. Eur.10). For all hydrogels, a pseudoplastic-thixotropic flow was observed. Hydrogels based on 2% $Carbopol_{980}$ (B4 and F4) had the highest spreadability (S_{B4}=3017.54mm²; S_{F4}=3419.46mm²). Texture profile analysis underlined two important parameters: cohesiveness (which influences the distribution of the product on the skin's surface) and adhesiveness (which influences the stickiness of the product). In the case of the hydrogel series B1-B4, the values of cohesiveness decreased in order: B3 (0.542)>B2 (0.504)>B4 (0.492)>B1 (0.393), and the adhesiveness decreased in order: B4 (3310 mJ)>B3 (2646 mJ)>B2 (2560 mJ)>B1 (1575 mJ). In the case of the hydrogels with API in composition, F4 had the highest value of cohesiveness (0.566) and F1 had the highest value of adhesiveness (3135 mJ). The amount of API after 8 hours decreased in order: F4 (36.59%±4.70)>F2 (19.91%±2.75)>F3 (17.90%±1.57)>F1 (16.35%±2.22). **Conclusions:** The characteristics of the developed formulations were directly influenced by the formulation variables and they generated differences between the hydrogels. However, it can be stated that all hydrogels presented satisfactory results, and F4 being the most optimal formulation will be integrated in future studies.

Keywords: diclofenac sodium, hydrogel, rheology, synthetic polymers.

PRACTICAL CONTRIBUTIONS TO TEXTURE ANALYSIS OF COSMETIC PRODUCTS

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Background: In the current era of the cosmetic industry, there is an increasing emphasis on quality products, and consumers are starting to pay more attention to the skincare products. An important aspect in this regard is the texture of the product and the way it feels on the skin, which contributes to the general perception of product quality and user satisfaction. **Objective:** The aim of this research is to investigate and compare the texture characteristics of two cosmetic products (P1 - moisturizing mask, and P2 - repair mask) from the facial masks category. **Material and methods:** The practical aspect of this study focused primarily on the texture profile analysis (TPA) and compression properties of the cosmetic samples using a Texture analyzer TX-700 instrument (samples evaluated at 23.5°C±0.2°C). Texture profile analysis allows the evaluation of the following parameters: hardness (the strength needed to cause a deformity), cohesiveness (the inherent bond of the load that must be

defeated to distribute the product on the skin's surface), adhesion (correlated to the stickiness and responsible for the formation of a bound with the facial surface area), and elasticity (the ability of the material to go back to its original height between the two compression cycles). **Results :** The results of this analysis highlighted a deep understanding of the differences between mask textures, providing objective data for their comparison and evaluation. The highest hardness was observed in the case of product P1. Products with greater hardness have poorer spreadability. The cohesiveness ranged between 0.476 for P1 and 0.517 for P2. Even if the face mask P2 had a value of adhesiveness (646.9 mJ) almost double compared with the value of P1 (383.1 mJ), the two products had similar values of elasticity (0.5000). **Conclusions:** These findings hold valuable practical implications for the cosmetics industry, providing pertinent information for the development and continuous improvement of products to effectively meet users' needs and expectations.

Keywords: texture analyzer, cosmetic products, compression, TPA

LC-MS/MS ANALYSIS OF TEN FOOD SUPPLEMENTS WITH CBD

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Background: Cannabis Sativa, is a plant species that has been utilized for centuries, for its antiemetic, anxiolytic and psychoactive properties. Cannabidiol (CBD), is a non-psychoactive compound found in cannabis that has been shown to have different effects like anti-inflammatory, analgesic and antioxidant actions. **Objective:** This study aimed to quantify CBD and five other cannabinoids by an LC-MS/MS method in ten commercial products. **Material and methods:** The content of the products was assessed using high-performance liquid chromatography coupled with mass spectrometry. We analyzed six cannabinoids : cannabidiolic acid (CBDA), cannabigerolic acid (CBGA), cannabidivarinic acid (CBGVA), cannabidiol (CBD), cannabigerol (CBG) and cannabidinol (CBN). Ten CBD commercial products bought from local pharmacies were analyzed. The analysis was performed by monitoring different transitions of the analytes using a negative electrospray ionization source. A system composed of a Flexar FX10 UHPLC and QTOF MS was used. The calibration curve was composed of ten levels with nominal concentrations between 5-1000 ng/mL for each of the analytes and was plotted using $1/y^2$. We calculated the accuracy of every calibration standard. **Results :** The LC-MS/MS method revealed the concentration of different cannabinoids in the commercial products we used for assessment. The results were then compared to the concentration of CBD labeled on the products. The lowest concentration was found to be in a CBD tea product (0.02% CBD). The highest measured concentration of CBD was 14.19%. After the comparison of our results with the declared concentration the greatest discrepancy was found in a food supplement that stated a 10% CBD concentration, while our results indicated a concentration of only 6.44% CBD. Regarding the concentration of other cannabinoids, CBG and CBN were found in high concentration in several products. **Conclusions:** The LC-MS/MS method we conducted revealed varying CBD concentrations (0.02%-14.19%) and also some discrepancies between our measurements and the labeled values. Notably, some products failed to mention the CBD concentration. Acknowledgement: This work was supported by the George Emil Palade University of Medicine, Pharmacy, Science and Technology of Târgu Mureș, Research Grant number 163 /7/ 10.01.2023.

Keywords: Cannabis sativa, LC-MS/MS, Cannabigerol, Commercial Products

MILITARY MEDICINE

REBOA USE IN THE CONTEXT OF COMBAT CASUALTY CARE, A REVIEW OF THE LITERATURE

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Background: With the advent of improvised explosive devices and the injury pattern that such contraptions are capable of causing, non-compressible uncontrolled haemorrhage began to represents one of the leading causes of mortality and morbidity on the battlefield. Although stoppage of limb haemorrhage is relatively straightforward given the widespread implementation of tourniquets and haemostatic gauzes supplied to manoeuvre forces, internal and junctional bleeding usually require surgical procedures not amenable to the austere environments of frontline combat to control. Resuscitative endovascular balloon occlusion of the aorta (REBOA) represents a procedure implementable in the Combat Field Care and Combat Evacuation Care phases of Tactical Combat Casualty Care (TCCC). **Objective:** Our study and presentation are aimed at raising awareness and interest among military medicine students regarding the current state of development of REBOA technologies and techniques so that implementation of such procedures may be accomplished in emergency care and combat medicine protocols in the near future. **Material and methods:** Search of relevant articles in emergency and military medicine journal no older than 10 years was conducted in march 2024 and yielded 11 sources regarding the history of REBOA application in military operations, procedural and adjunct means of limiting ischemic damage to distal organs as well as alternative devices usable in the context of internal haemorrhage on the battlefield. **Results :** Although undoubtably useful in controlling junctional haemorrhage REBOA presents several problems such as reperfusion and ischemia injury to proximal and distal organs respectively and the possibility of ballon misplacement, migration or aortic rupture. To this end recent studies have shown the utility of using distal hypothermia, endovascular variable aortic control (EVAC) techniques and an alternative rescue stent in aortic occlusion procedures to limit organ damage and of implementing a model of arterial occlusion device based on CO_2 ballon inflation starting at the injury site to prevent ballon migration, misplacement and arterial injury. Placement confirmation strategies using radiofrequency and dual-channel broadband diffuse optical spectroscopy have been sown to be useful in confirming ballon placement and algorithms for deciding upon REBOA vs thoracotomy deployment have been developed recently and are presented here. **Conclusions:** REBOA represents a therapeutic option with an uncomfortably low cost/benefit ratio at the moment which precludes its largescale implementation. Although innovations have been made since its first deployment by Lieutenant Colonel (LTC) Carl Hughes in 1954 there is still work to be done in order to ensure the long-term benefice of the procedure.

Keywords: REBOA, TCCC, EVAC, Hypothermia

INNOVATIVE DENTAL GADGET EMPLOYED BY MILITARY PERSONNEL TO REMOTELY OPERATE ELECTRONIC EQUIPMENT

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Background: The evolution of equipment technology in the military field has been marked by continuous advancements driven by the need for enhanced capabilities, increased efficiency, and improved safety. Militaries around the world often employ a wide range of specialized equipment, including various forms of input devices for controlling electronic systems and machinery. **Objective:** A device like this is MouthPad. Its potential application in the military field is significant. While this is a brand-new technology and apparatus, an examination of its design and practical uses in civilian life allows us to believe that it may find its way into military personnel's standard equipment. **Material and methods:** Even though more research is required, by examining recent papers and publications, we may make some assumptions about this device's potential future. **Results :** Using Bluetooth, MouthPad is a tongue-driven interface that can be used to operate electronic systems and machinery using the movements of your tongue on the device. The touchpad is placed on the hard palate and it is held in place by a clear dental retainer and has attached a battery on the vestibular side of the molars that will be situated in the maxillary vestibule. It could be used in situations where soldiers need to control drones for surveillance or reconnaissance purposes while on the move or in a confined space, a mouth pad with a trackpad could allow for

hands-free control of the UAV's flight path, camera orientation, and other functions. Another possibility of using MouthPad is while military personnel may use Robotics and Unmanned Ground Vehicles for tasks such as bomb disposal, reconnaissance, or search and rescue in hazardous environments. A mouth-operated trackpad could enable operators to navigate and manipulate these vehicles remotely while keeping their hands free for other tasks, such as handling equipment or weapons. Furthermore, MouthPad could be used for mapping and navigation, as well as for tactical communication. **Conclusions:** : In specific scenarios where conventional input methods are risky or unfeasible, military forces may adopt hands-free input devices, such as MouthPads.

Keywords: Dental Device, Mouth Pad, Tactical Maneuvers

THE IMPACT OF SURGICAL INTERVENTION IN CERVICAL SPINE INJURIES

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Background: Cranio-cerebral and spinal traumas can have serious consequences on motor and sensory function, but especially on the quality of life of patients. Therefore, it is important that medical-surgical care be provided under optimal conditions. **Objective:** This study investigates how surgical intervention affects the clinical status in traumatic fractures and dislocations of the cervical spine area. **Material and methods:** We conducted a study between 2023 and 2024, including 209 patients with cervical traumas at the Emergency County Clinical Hospital Târgu-Mureș. Inclusion criteria were adult age (≥ 18 years), hospitalization during the period 2012-2023, and survival to surgical intervention. The analysis was performed on 61 patients, with data collected from discharge summaries and CT images. Analysis was conducted using Microsoft Excel and IBM SPSS v26, at a significance level of 5%, and graphs were generated using GraphPad Prism 10.2.1." **Results :** The results of the statistical analysis show a predominant involvement of male patients (83.6%), originating from rural areas (70.5%), with the highest incidence occurring in the age group between 45 and 50 years. Male patients were significantly more likely to be involved in accidents such as falls from height, blunt force injuries, or forestry accidents, while females were more exposed to road accidents ($p<0.05$). Most commonly, the mechanism of accidents involved high-energy force and predominantly caused multiple fractures (78.7%), subaxial type (87.5%), as well as subaxial dislocations (92.1%). Additionally, the majority of patients fully regained cerebral activity, an observation based on preoperative Glasgow score measurement (14.02±3.319), which was lower than the postoperative score (14.98 ± 0.128). Furthermore, the Glasgow score varied depending on the presence of multiple fractures (12.33 ± 5.124 compared to 14.72 ± 1.83 in cases of single fractures), hemodynamic stability (14.19 ± 3.043 in stable patients versus 9.00 ± 8.485 in hemodynamically unstable patients). The patient cohort showed a significantly lower postoperative rate of cervical pain, pyramidal signs, sensory deficit, as well as a significant improvement in motor deficits in the limbs ($p<0.05$). **Conclusions:** The preoperative clinical condition significantly improved postoperatively, indicating that surgical intervention had a positive impact on cervical traumatic fractures and dislocations.

Keywords: Cervical spine, Surgical intervention, fractures, dislocations

CBCT IN COMBAT: PIONEERING ANATOMICAL STRATEGIES FOR MAXILLOFACIAL REHABILITATION

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Background: The integration of advanced imaging technologies, such as Cone Beam Computed Tomography (CBCT), has transformed the rehabilitation treatment for military maxillofacial trauma, enhancing care delivery. Despite these advancements, the field lacks a comprehensive anatomical analysis of endosteal, zygomatic, and pterygoid implants, a gap that limits clinical decision-making efficacy. Addressing this **research void** could significantly improve the selection of implants, tailored to the unique challenges of military-induced injuries. This study underscores the necessity of embracing imaging-driven, personalized anatomical insights, particularly for those afflicted by maxillofacial trauma. **Objective:** This research aims to leverage the capabilities of CBCT imaging to optimize rehabilitation for military personnel by focusing on **anatomically informed clinical decision-making** for maxillofacial injuries. Through a detailed comparative analysis of different implant types, facilitated by CBCT, the study seeks to guide toward refined clinical practices that accommodate the anatomical uniqueness of each patient, thereby enhancing care in military trauma scenarios. **Material and methods:** Our analysis involved

50 anonymized CBCT scans, equivalent to 100 hemimaxillae, to study the impact of maxillary morphological variations on implant placement. Advanced software applications such as Planmeca Romexis Viewer (3.5.0.R), Horos for macOS (Horos Project), and Blue Sky Plan 4 were utilized for precise measurements, comprehensive 3D model assessments, and simulations of implant placements. Measurements focused on the height and width of the alveolar process across three main areas: the anterior (premaxilla), middle (at the zygomaticoalveolar crest), and posterior (tuberosity of the maxilla and pterygoid process). **Results :** Analysis of the CBCT scans revealed significant variability in the dimensions of the maxillary alveolar process, particularly in the anterior region with widths ranging from 2.7 to 11.65 mm and heights from 6.4 to 27.6 mm. The posterior region also showed significant variability, posing challenges for implant placement. Of note, 21 out of 100 hemimaxillae were unsuitable for zygomatic implants □□□ due to extensive maxillary resorption and 2 due to highly pneumatized zygomatic bones. Additionally, 9 hemimaxillae were unsuitable for pterygoid implants due to significant resorption. Remarkably, one patient was ineligible for both zygomatic and pterygoid implants, highlighting the complexity of selecting appropriate implants in patients with severe conditions. **Conclusions:** CBCT utilization for pre-surgical planning is indispensable in the **anatomically tailored evaluation** of patients, especially following maxillofacial combat trauma which can dramatically alter anatomical landscapes. This precise anatomical assessment is crucial for improving clinical decision-making and outcomes, highlighting the paramount importance of individualized imaging in the strategic planning of implant-based reconstructions for personalized patient care.

Keywords: Military Maxillofacial Trauma, Anatomical Variability, CBCT Imaging, Personalized Anatomical Assessment

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COMBATTING HUMAN PAPILLOMAVIRUS: THE CRITICAL ROLE OF HPV VACCINATION

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Background: Human Papillomavirus (HPV) is a group of more than 200 related viruses. A part of them (most commonly HPV type 2 and 4) can cause warts (benign growths that can develop on your skin and mucosa). However many types of HPV can cause several varieties of cancer. There are 12 high-risk HPV types, but two of these, HPV 16 and 18, are responsible for most HPV-related cancers. **Objective:** This study aimed to emphasize the importance of the HPV vaccine for both, girls and boys, especially for those who are sexually active because the virus is transmitted by direct contact, mainly through sexual contact. **Material and methods:** To gather information, materials were retrieved from PubMed, National Cancer Institute, and Google Scholar using the keywords: "Human Papillomavirus", "cervical cancer" and "HPV vaccine". The information presented was carefully selected from the most recent articles from around the world that were specifically related to Human Papillomavirus 16 and 18. **Results :** The results of the analysis showed that Human Papillomavirus causes more than 99% of cervical cancers, 90% of anal cancers, and 70% of oropharyngeal cancers. The highest rate of new infection occurs in individuals aged 15 to 24 years old and for many, infection with HPV occurs without symptoms. Cervical cancer, which is the fourth cause of death in women, caused 600.000 new victims in 2020 and 340.000 deaths. Countries like Australia prevented this scenario by implementing the HPV vaccine in 2007 for females aged 12 to 13 and in 2013 the programme extended to males aged 12 to 13. The rate of HPV infection dropped from 22.7% to just 1.5% by 2015. Nowadays Australia recommends the HPV vaccine for all people aged 9 to 25 and it's free. In 2008 Scotland adopted the same immunisation programme and in Sweden, 80% of the general population declared vaccinated in 2022. However, vaccine hesitancy remains an issue in countries throughout Europe. In Romania, 3400 women are diagnosed with cervical cancer, and 1800 die annually. The mortality rate is over 4 times higher than the European Union average. **Conclusions:** The best method of prophylaxis for an HPV infection is the vaccine that can be administered to a person who was not infected with HPV. Males need to be vaccinated too because not only they can transmit the infection, but can also develop anal, penile, oropharyngeal, or other types of cancers.

Keywords: Human Papillomavirus, Cervical cancer, HPV vaccine

PRIORITIZE RESPIRATORY PROTECTION AND MEDICAL GUIDANCE

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Background: Faced with a worrying increase in self-medication, especially in respiratory conditions, it is crucial to emphasize the importance of collective and individual preventive measures. These include promoting respiratory hygiene, adhering to social distancing protocols and embracing healthy lifestyle practices. Though self-medication may appear convenient initially for minor symptoms, it often results in complications and treatment delays. **Objective:** Increasing public awareness of self-medication risks in respiratory conditions and promoting access to quality medical care through education and collaboration between healthcare professionals and the community. **Material and methods:** We obtained data related to the behavior of 152 patients regarding the information and usage of over-the-counter medications from their responses to structured questionnaires disseminated online, through social networking platforms. The study is prospective, descriptive and observational. Inclusion criteria: adults (≥ 18 years) consenting to data processing. Exclusion criteria: pediatric patients or non-consenting individuals. The Chi-Square Test was used for statistics and p-value below 0.05 indicated statistical significance. **Results :** The group consists of 152 respondents, mostly female (around 58%) and under 65 years old, making up about 88% of the total population. About 77% of participants are from urban areas and approximately 63% do not have chronic illnesses. Around 40% of respondents use over-the-counter medications for their respiratory issues, which symptoms typically appear within days (51%). Pharmacists recommend these medications most often (23%), followed by family members (20%), the internet (9.2%) and friends (7.2%). During respiratory conditions, the majority of patients (31%) do not take extra hygiene measures. Some clean objects, wear masks or wash hands more frequently (18%), while 17% only wash hands more often. Others combine handwashing with sanitizing objects (9%) or wearing masks (8%). Around 71% of participants dispose of masks and tissues after use. **Conclusions:** The study highlights the lack of adherence to hygiene and personal protection measures, as well as the common self-medication practices observed in respiratory conditions. It emphasizes the importance of improved patient education regarding protective measures and the risks of self-medication, along with the necessity of prompt medical assessment and proper treatment of respiratory symptoms. Addressing these issues can reduce the negative impact of respiratory diseases and contribute to improving health status at both individual and community levels.

Keywords: automedication, over-the-counter medications, hygiene, social distancing

ASSESSING THE EFFECTIVENESS OF THERAPEUTIC DIET IN MANAGING CHRONIC GASTRITIS: AN INTEGRATED APPROACH

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Background: Chronic gastritis is one of the most common gastrointestinal disorders, affecting millions of people worldwide. Among the various therapeutic strategies and symptom management approaches associated with this condition, adopting a balanced diet has been recognized as playing a crucial role in maintaining gastrointestinal health and improving the quality of life for patients. **Objective:** This paper aims to identify both non-modifiable risk factors (such as age) and modifiable ones (such as dietary habits, perception of a balanced diet, and consumption of carbonated beverages) through responses obtained from the surveyed participants. These factors are associated with various digestive conditions, including gastroesophageal reflux disease, gastric ulcer, chronic gastritis, and Helicobacter pylori infection. **Material and methods:** Data were collected through structured questionnaire analysis involving a total of 152 individuals. Microsoft Excel and IBM SPSS v26, IL, Chicago, were used for statistical analysis of the results, employing chi-square statistical tests suitable for categorical variables. For interpretation, the significance level considered was less than 5% (0.05). Inclusion criteria were as follows: adult population (≥ 18 years old) who consented to data processing for research purposes. Exclusion criteria included pediatric patients or those who did not agree to the processing of personal data after completing the questionnaire. **Results :** The study includes 152 participants, of whom 122 are female and the rest are male, investigating how foods influence their digestive health. Regarding the incidence of symptoms within the cohort, 35% of respondents reported postprandial fullness, followed by patients reporting diffuse abdominal pain (29%).

Other identified symptoms include gastroesophageal reflux (11%), heartburn (10%), nausea or vomiting (3%). Approximately 29% of respondents reported no digestive symptoms. Most commonly, symptoms occur in relation to fast-food consumption (42%), while in 16% of cases, symptoms occur postprandially. Lastly, in 7% of participants, symptoms are subsequent to alcohol or coffee consumption, and in fewer cases (5%), symptoms occur in relation to pasta or cheese consumption. **Conclusions:** The majority of study participants believe that a balanced diet ensures a healthy lifestyle. Patients age was statistically correlated with processed meat consumption, fiber and whole grain consumption, fruit and vegetable consumption (in short, dietary habits).

Keywords: chronic gastritis, diet, symptoms, pain

NEUTROPHIL TO LYMPHOCYTE RATIO PREDICTS THE ONE-MONTH RESPONSE TO STATIN THERAPY IN PATIENTS FOLLOWING AN ACUTE CORONARY SYNDROME

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Background: The low-density lipoprotein (LDL) cholesterol target for patients undergoing percutaneous coronary intervention (PCI) for acute coronary syndrome (ACS) is less than 55 mg/dL. According to the available data, only about half of the patients reach their target LDL-cholesterol level within a month after the acute event. Under these conditions, identifying potential predictors of response to standard hypolipidemic treatment may lead to improved secondary prevention. **Objective:** The purpose of the present study was to investigate if complete blood count derived inflammatory markers can predict the response to lipid-lowering treatment in high-risk patients. **Material and methods:** 66 consecutive patients (statin-naïve) admitted to the Cardiology Department of the Emergency Clinical County Hospital Târgu Mureș with ACS who underwent PCI were included in the present study. All patients were discharged on high-dose statin therapy (rosuvastatin 40 mg or atorvastatin 80 mg). Patients were divided into two groups based on their LDL-cholesterol levels at one month after the acute event: Group 1 - patients with LDL-cholesterol <55 mg/dL (n= 39) and Group 2 - patients with LDL-cholesterol ≥55 mg/dL (n= 27). Upon admission, all patients' demographic and laboratory data (complete blood count) were collected. The hemogram data were then used to calculate inflammatory markers such as the neutrophil to lymphocyte ratio (NLR), monocyte to lymphocyte ratio (MLR), and platelets to lymphocyte ratio. **Results :** The mean age of patients in Group 1 was 61.41 ± 11.98 years, and in Group 2 was 64.22 ± 10.52 years (p= 0.32), with no difference regarding the gender distribution (66.67% versus 55.56% males; p= 0.44; R.R.= 1.22). The NLR was significantly lower in patients who reached their LDL cholesterol target compared to those who did not (3.88 ± 2.08 versus 6.33 ± 4.35; p= 0.003). The ROC curve analysis revealed that the optimal NLR cut-off value for predicting LDL-cholesterol target attainment was < 3.01, with associated sensitivity (55.72%) and specificity (88.89%). No difference was observed between the two groups in terms of inflammatory markers MLR and PLR (both p>0.05). **Conclusions:** The current study's findings indicate that NLR predicts the reach of LDL cholesterol in high-risk patients. Furthermore, the data point to the need for a more aggressive lipid-lowering treatment in patients with NLR > 3.01, in order to achieve the target LDL-cholesterol as soon as possible after an ACS.

Keywords: acute coronary syndrome, low-density lipoprotein, neutrophil to lymphocyte ratio, statin

SURVIVING THE WILD: FORENSIC INSIGHTS INTO HUMAN-BEAR ENCOUNTERS

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Background: Romania harbors over 60% of the European population of the brown bear species (Ursus arctos), leading to an escalation in bear-human encounters resulting in attacks. The injuries inflicted by bear attacks are distinguishable due to their unique pattern characterized by rending and cutting with claws and teeth, setting them apart from other injury types. **Objective:** This study aims to conduct a forensic medical analysis of injuries resulting from bear attacks in Mures and Harghita counties during the period spanning from 2018 to 2023. **Material and methods:** Retrieving data from the archives of the Institute of Forensic Medicine in Targu Mures and the Service of Forensic Medicine in Miercurea Ciuc, a total of 29 medico-legal examinations performed on bear attack victims were analyzed. Descriptive statistics and graphical representations were employed to examine the primary aspects

of the acquired injuries. **Results :** Analysis of the 29 cases revealed that the majority of victims were male (90%), with a smaller proportion being female (10%). The most frequently affected age group was individuals aged 60-69 years (38%), predominantly residing in rural areas (86%) as opposed to urban locales (4%). Bear attacks were most prevalent during the summer season (38%), followed closely by autumn (35%), with fewer incidents occurring in winter (10%). Among the 29 attacks, 17% resulted in fatalities, while the remaining 83% of victims survived. Among the survivors, the majority of injuries were localized to the upper limb (36%), followed by the skull (30%), thorax (22%), and lower limb (12%). Bite wounds accounted for the majority of these injuries (66%), with fractures (14%), bruising and hematoma (11%), and excoriations (9%) constituting a smaller proportion. **Conclusions:** In forensic practice, distinguishing bear attack patterns from those caused by other biological traumatic agents is relatively straightforward due to the distinct paw and bite marks. Furthermore, the prevalence of injuries to the upper limb suggests a defensive reflex in victims. While bear attacks are infrequent, they represent a significant and tragic manifestation of human-wildlife conflict. Hence, dissemination of information regarding appropriate measures to mitigate such conflicts is imperative.

Keywords: Bear attack, Injuries, Forensic, Mauling

A COMPARATIVE BIOMECHANICAL EVALUATION OF THORACIC AND INFRARENAL AORTIC ANEURYSMS WALL

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Background: Aortic aneurysms often enlarge without showing symptoms until a severe event like aortic rupture or dissection happens, leading to significant illness, death, and substantial healthcare costs. The most frequent sites for aneurysms are typically the lower part of the abdominal aorta and then the upper part of the chest's aorta. Thoracic aortic aneurysms (TAAs) and abdominal aortic aneurysms (AAAs) exhibit certain common pathological features such as the depletion of vascular smooth muscle cells (VSMCs) and damage to elastic fibers within the matrix. However, there are notable distinctions in the pathology between TAAs and AAAs, reflecting the unique characteristics of each type of aneurysm. **Objective:** With this study, we aim to compare the biomechanical properties of the AAA and the TAA. **Material and methods:** We prepared 25 aneurysmal samples (20 AAAs and 5 TAAs). For the uniaxial analysis of the tissues, we used the BioTester® 5000 (CellScale). The protocol implied a preconditioning cycle of stretching the sample until reaching the force of 50 mN, followed by 10 cycles of 50 seconds each (25 seconds of stretch and 25 seconds of recovery). Further, the data from the last cycle was statistically analyzed. **Results :** Thickness-wise, we noticed no significant difference between the AAAs and the TAAs (1.68mm vs 1.47mm p=0.47). Moreover, we registered a much higher Cauchy stress (kPa) in the circumferential axis for the AAA (258,67 vs 99,16 p=0.01) and higher Young's modulus (kPa) (1437,37 vs 465,09 p=0.01). **Conclusions:** The AAA wall presents a higher rigidity than the TAA, even if their thickness is similar. In this study, we found that the abdominal aorta's aneurysmal wall is more resistant to expansion and rupture than the thoracic aorta.

Keywords: biomechanical analysis, aortic abdominal aneurysm, thoracic aortic aneurysm, vascular surgery

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MEDICO-LEGAL ASPECTS IN SEXUAL ASSAULT

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Background: Sexual assault encompasses a large variety of undesired, attempted or not, forms of violence, ranging from verbal and sexual harassment, drug and alcohol facilitated sexual relations, to the act of rape itself. It implies the use of coercion, either being explicit, by physical force or through psychological constraint, or implicit, when the victim is unable to freely consent and to defend oneself. This infringement of the sexual autonomy represents a worldwide and long-lasting serious public health issue, which can affect everyone, irrespective of gender and age. Nonetheless, a large number of cases yet remain under-reported. **Objective:** This study is aimed at highlighting different patterns of the sexual assault, for instance: age and sex of the victim, traumatic lesion types, number of medico-legal days required, the known or unknown identity of the aggressor, as well as the kind of coercion involved. **Material and methods:** By means of descriptive statistics, 27 medico-legal cases of rapes

are exposed, which occurred over a span of 2 years (2021-2022), in Mures county, which were collected from the archives of the Institute of Forensic Medicine Targu Mures. **Results :** As a result, girls and women are prone to sexual assault, with a percentage of 92,6% (25 cases out of 27), with a median age of 26,4 years. Many of the victims are born in rural areas (74%). 81,48% sought the aid of the authorities the same or the next day after the incident, while the rest were reluctant to act immediately. 55,55% of the victims required medical assistance, and 7,4% presented life endangerment. 40,7% showed lesions eliciting immobilization (wrists, neck, head, and calf areas), and 26% suffered typical areas lesions (inner parts of the thighs, perineum, and breast).77,77% of the victims had a known aggressor, explicit coercion being frequently inflicted (70,37%). In 11,11% cases there were multiple aggressors, and 14,81% of the survivors faced repeated sexual abuse. **Conclusions:** As expected, the female gender is subject to most of the sexual assault cases, with clear evidence of bias towards young ones. Often, the aggressor is an acquaintance or an intimate partner, who inflicted injuries on their victims by physical force or by moral constraint.

Keywords: sexual assault, rape, forensics

THE CORRELATION BETWEEN CLINICAL AND PARACLINICAL IN TIBIAL PLATEAU FRACTURE, FUNCTIONAL OUTCOMES IN MEDIUM AND LONG TERM.

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Background: A tibial plateau fracture represents a significant injury to the knee joint, with implications on functional status and mobility of the patient. Clinical and paraclinical evaluation are two essential aspects in approaching these fractures, providing critical information for treatment planning and assessing outcomes in the medium and long term. **Objective:** The objective is to demonstrate that the clinical and paraclinical evaluation and their correlation are fundamental in managing tibial plateau fractures and ensuring optimal functional outcomes in both medium and long term for patients. **Material and methods:** During the 4-year period (2007-2010), a total of 123 patients were documented to have been diagnosed with tibial plateau fractures. Evaluation was conducted on 82 patients who underwent both orthopedic and surgical treatments. **Results :** The uniform distribution may seem unusual, but considering the age at which patients suffer these fractures, differences in physical conditions, anatomical peculiarities, and decreased bone quality (with hormonal determination) present in females should also be considered. The age extremes range from 24 to 82 years, with an average age of 54.8 years. Regarding the distribution based on the affected side, there is a prevalence of 53.66% (44 patients) in the left knee, to the detriment of the right knee. The patients' provenance is mostly urban (64.63%), due to the larger population in this environment and the more difficult access to specialized medical services for rural patients. Using the Schatzker classification, it is observed that predominantly are type II fractures (the lateral tibial plateau is more exposed and less protected from traumatic agents) (21.95%), but also those produced by other mechanisms, namely types V and VI (24.39% each), the different figures being explained by etiology and the age of the patients within them. Depending on several factors (age, associated pathologies, type of fracture, patient compliance), patients received orthopedic treatment (39.03%), either surgical, followed by plaster immobilization (53.65%), which also determines a shorter or longer hospital stay. Much more commonly encountered are also the etiologies and lesions from the same level by slipping (48%), and these are exclusively found in elderly patients. Considering associated injuries, the most commonly encountered are meniscus injuries, but also associated fractures of the fibula, head, or body, the latter being affected to a very large extent in the case of tibial fractures. **Conclusions:** The correlation between clinical and paraclinical, imaging playing a crucial role, aspects in tibial plateau fracture is essential for establishing a precise diagnosis and an effective treatment plan.

Keywords: Tibial, Evaluation, Correlation, Patients

MEDICO-LEGAL, DEMOGRAPHIC AND SOCIAL CONSIDERATIONS IN THE SUICIDAL ACT

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Background: With a multifactorial determinism, an abundance of etiopathogenetic factors, often embedded against a backdrop of psychological instability, as well as chronic alcohol consumption or even illicit substance

use, suicide remains at a constant level, ranking 10th among the causes of death globally, according to the World Health Organisation (WHO). **Objective:** The motivation of this study lies in the collective awareness of a complex and delicate phenomenon that affects both the individual and the community as a whole and it is supported by the need to understand suicidal behavior, focussing on the underlaying factors found in every community. **Material and methods:** Data regarding individuals who committed suicide in Mures County were collected from the archive of Targu Mures Forensic Department, over one year timeframe. Medicolegal aspects like suicide method, post-mortem findings and toxicological reports as well as demographic and social aspects were analyzed regarding 83 cases that were identified and included in the study. **Results :** Of all cases, 84% were males, 63% belonged to a minority (Hungarian) and 68% being from rural areas. The majority of suicides was commited during spring season (32%), closely followed by summer(24%),autumn(23%)and winter (21%).The most common method encountered was hanging (93.9%) with the presence of atypical ligature marks in 72%, followed by other methods in a much lower percentage (self stabing 3.7%, electrocution - 1.2%, gunshot - 1.2%). Ethanol intoxication was found in 46%, and the majority being represented by men. **Conclusions:** Forensic expertise regarding suicide cases remains an essential desideratum regarding their subsequent analysis. The data obtained from forensic physicians, corroborated with the experience of psychiatrists, psychologists and social workers, play a crucial role in identifying preventive methods, treating individuals at risk of suicide, and reintegrating those in distress.

Keywords: Suicide, Demographic factors, Autopsy findings, Forensic medicine

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PREDICTIVE FACTORS FOR INVASIVE VENTILATION IN PATIENTS WITH ACUTE EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN THE EMERGENCY DEPARTMENT

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Background: With 3.23 million fatalities/year, chronic obstructive pulmonary disease (COPD) ranks as the third most common cause of mortality globally. Severe acute COPD exacerbation (AECOPD) patients frequently need ventilatory support in the E.D., making the decision between invasive and non-invasive ventilation (NIV) often difficult to take. **Objective:** The purpose of this study was to determine whether scores generally used in intensive care (APACHE2) or scores recently developed specifically for NIV failure (HACOR, NIVO), can be used to identify patients requiring invasive mechanical ventilation. **Material and methods:** 74 consecutive patients admitted to the E.D. with AECOPD and who required mechanical ventilation were included in the current analysis. The patients were divided into two groups according to the type of mechanical ventilation used, as follows: Patients in Group 1 received NIV (n=21), while patients in Group 2 required invasive ventilation (n=53). In all patients, APACHE2, NIVO and HACOR scores were calculated upon admission. The data were analyzed using Mann-Whitney test. All continuous variables are presented as median ± SEM. To further evaluate the capacity of these scores to predict the requirement for invasive ventilation, ROC curve analysis was performed. The α value was set at 0.05 **Results :** Patients requiring invasive ventilation had significantly higher APACHE2 (20.00 ± 0.92 versus 15.00 ± 0.97; p= 0.0005), NIVO (3.00 ± 0.17 versus 2.00 ± 0.32; p= 0.02), and HACOR (7.00 ± 0.79 versus 4.00 ± 0.81; p= 0.001) scores than those requiring NIV. The best cut-off value of APACHE2 score for predicting the need for invasive ventilation was ≥ 17 (sensitivity 71.70%; specificity 66.67%; AUC 0.76; p= 0.0006). For NIVO score, the best cut-off value was ≥ 3 (sensitivity 54.72%; specificity 71.43%; AUC 0.67; p= 0.03), while for HACOR score the best cut-off value was ≥ 5 (sensitivity 64.15%; specificity 66.67%; AUC 0.73; p= 0.002). **Conclusions:** The requirement for invasive ventilation can be predicted using the APACHE2, NIVO and HACOR scores that were determined at admission to the E.D.. Early detection of patients exhibiting a predictive value for the need for invasive ventilation can direct the first course of therapeutic action. This can involve the implementation of a more aggressive drug treatment during the early stages of the exacerbation or the simultaneous initiation of early invasive ventilation and drug treatment, to reduce mortality rates.

Keywords: AECOPD, APACHE2, HACOR, NIVO, invasive ventilation

A CLINICAL AND OPERATIONAL PERSPECTIVE: THE UTILITY OF ULTRASOUND IN BATTLEFIELD TRAUMA MANAGEMENT

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Background: Battlefield trauma management represents an essential aspect of military medical care, as well as a major challenge which impacts directly the soldiers involved in armed conflicts regarding their surviving and recovering. Ultrasound is a non-invasive imagistic technique with potential in the initial evaluation and the triage of the wounded, especially in the environments with limited resources and restricted access to complex equipment. **Objective:** The present paper aims to evaluate the benefits of using ultrasound in managing battlefield trauma, considering its role in quickly diagnosing internal injuries, guiding the therapeutic interventions and optimizing the decisions regarding both the treatment and the evacuation. **Material and methods:** With a view to achieving these objectives, we accomplished a systematic review of the relevant literature, examining reports and scientific articles on the use of ultrasound in the management of battlefield trauma. **Results :** Ultrasound is a rapid, non-invasive and portable method for assessing traumatic injuries, allowing for the quick identification of internal hemorrhage, pneumothorax, vascular injuries, or even musculoskeletal injuries. The use of ultrasound in battlefield trauma management has demonstrated a significant improvement in diagnosis and therapeutic guidance, as it reduced the time from assessment to intervention, contributing consequently to life-saving. **Conclusions:** In conclusion, echography represents a valuable tool among the military medical means for managing the trauma on the battlefield. Integrating it in the clinical practice can significantly improve the capacity of diagnosis and treatment for the traumatic injuries, thereby leading to a more effective medical care, as well as to improved results both for the soldiers and the civilians involved in armed conflicts.

Keywords: battlefield trauma management, military medical care, ultrasound, traumatic injuries

REVOLUTIONIZING COMBAT HEALTHCARE: DRONES IN MILITARY MEDICAL SUPPORT

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Background: Recent military conflicts have highlighted the critical role of drones in combat operations. In addition to their utility in reconnaissance and airstrikes, drones are increasingly being explored for their potential in providing medical support to wounded soldiers in remote and high-intensity combat zones. This review aims to analyze existing literature from PubMed, ResearchGate, and EBCOhost to assess the evolution, challenges, and future prospects of using drones in combat medical support. **Objective:** The primary objective of this review is to examine the current state of research and development in utilizing drones for combat medical support. Specifically, the review seeks to identify different categories of medical drones, assess their capabilities and limitations, and explore potential applications in various combat scenarios. **Material and methods:** A comprehensive search was conducted on PubMed, ResearchGate, and EBCOhost databases using relevant keywords such as "medical drones," "combat casualty care," "remote medicine," and "drones in warfare." Articles published between 2010 and 2024 were included in the review. Relevant studies, case reports, and review articles were selected based on their relevance to the topic. **Results :** The review identified four main categories of medical drones: medical cargo-drones, ambulance-drones, medical robot-drones, and CBRN drones. Each category presents unique capabilities and challenges, ranging from transporting medical supplies to conducting medical assessments and triaging casualties in contaminated zones. While significant progress has been made in the development and testing of medical drones, several technical, logistical, and ethical challenges remain to be addressed. **Conclusions:** The review concludes that drones have the potential to revolutionize combat medical support by providing rapid and efficient assistance to wounded soldiers in challenging environments. However, successful implementation requires overcoming technical hurdles, ensuring interoperability with existing medical systems, and addressing ethical considerations regarding patient care and safety.

Keywords: drones, combat casualty care, military healthcare

A MEDICAL APPROACH TO THE BENEFITS OF READING FICTION AMONG HEALTH PROFESSIONALS

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Background: Reading literature has long been recognized as a valuable activity in personal development, fostering empathy, cultural understanding, and language skills. In the context of medical practice, the importance of these qualities cannot be overstated, as specialists in healthcare domain must effectively communicate with diverse patients and understand their unique experiences. **Objective:** This study aims to explore how fiction reading contributes to the formation of empathetic and communication skills by both medical students and physicians, ultimately enhancing patient care. Moreover, the study follows to find the level of awareness among health professionals regarding the significance of integrating reading fiction in their daily routine, as well as their reading habits at the moment. **Material and methods:** For this investigation, the following psychological methods were used: conversation, explanation, and questionnaire. The questionnaire was intended for both medical students and specialists and was completed by 92 people. **Results :** The received answers revealed that, as it was expected, more than a half of the respondents considered that they are less empathetic at the moment than before stepping on the medical path. Also, they are aware that through exposure to fictional narratives and different characters, they expand their empathy and refine their communication strategies, as well as developing a better attitude towards patients. **Conclusions:** In conclusion, reading literature serves as an efficient tool for developing empathetic and communicative physicians. It is very important to understand how reading improves social integrity, not only in the medical field, and to raise awareness about their unlimited benefits in developing a healthy and fulfilling life.

Keywords: Literature, Reading, Empathy, Communication

MILITARY

ENHANCING OPERATIONAL EFFICIENCY THROUGH BLOCKCHAIN TECHNOLOGY

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Background: Military organizations struggle with efficiency in operations, logistics, and administration due to *complex systems and data management needs*. Traditional methods are error-prone and insecure. Emerging technologies like **blockchain** offer potential solutions. Blockchain, known for cryptocurrencies, is *a secure and transparent way to record data across a network*. This technology could revolutionize military operations by improving efficiency and security. **Objective:** This paper investigates how blockchain technology can improve efficiency in military operations, logistics, and administration. It analyzes the challenges in these areas and explores how blockchain's secure and transparent data recording capabilities can streamline processes, increase transparency, and potentially reduce costs within the military. **Material and methods:** The current paper details a literature review across various sources (academic, government, industry) and case studies with military personnel to understand current challenges and opportunities for blockchain implementation. Statistical analysis and data visualization techniques were employed to identify *trends*, *patterns*, and *correlations* that could inform the findings and conclusions of the study. **Results :** ***Supply Chain Management***: Blockchain can track goods and equipment movement in real-time using smart contracts to automate transactions and reduce fraud.***Asset Management***: Blockchain can create transparent and auditable records of military assets, improving accountability and reducing mismanagement.***Personnel Management***: Secure, blockchain-based identity systems can store and verify personnel credentials, streamlining management processes and enhancing security.***Healthcare Management***: Blockchain can improve healthcare data management, including electronic health records and medical supply chains, to ensure data integrity and enhance healthcare quality for military personnel. **Conclusions:** In conclusion, blockchain technology holds tremendous potential for enhancing operational efficiency within military organizations. By leveraging blockchain solutions in military operations, logistics, and administration, military organizations can improve transparency, streamline processes, and enhance security. However, successful implementation of blockchain technology requires careful consideration of factors such as *interoperability*, *scalability*, and *regulatory compliance*. Further research and pilot projects are needed to fully realize the benefits of blockchain in military contexts.

Keywords: Operational Efficiency, Blockchain Technology, Cryptography, Data Recording

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GRAPHENE: FROM LAB TO BATTLEFIELD

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Background: Graphene, an atomic-scale hexagonal lattice made of carbon atoms, has emerged as a groundbreaking material with unique properties. This material sheer mechanical strength, high electron mobility, enhanced thermal conductivity, and extreme optical transparency make it a promising candidate for various applications. **Objective:** The objective of this study is to explore the potential of graphene in enhancing soldier protection on the battlefield. Specifically, we investigate how graphene-based materials can improve body armor, power generation, and water purification for military personnel. **Material and methods:** After reviewing the scientific literature and various research from Romania and other international military congresses, we have concluded that graphene is remarkable material of the future, which can make a big difference between life and death. **Results :** Graphene offers several advantages for soldier protection. Graphene's robustness and flexibility surpass that of steel. It can significantly improve existing body armor made from materials like Kevlar. Its higher tensile strength makes it an ideal candidate for protecting soldiers. Graphene can enhance batteries in radios and other devices, allowing quick charging or replacement. Its excellent electrical conductivity contributes to efficient power generation. Also in, the thermal properties of graphene are used to regulate soldiers body temperature under extreme conditions, be it heat or cold. Graphene can also be used in the development of sensors that monitor soldiers health in real time, providing vital data to commanders. Graphene filters exhibit high reactivity with water, making them suitable for water purification systems, a critical resource for soldiers. **Conclusions:** Graphene's exceptional properties position it as a game-changer in soldier protection. As research continues, we anticipate further innovations and commercial availability of graphene-based devices for military applications.

Keywords: graphene,, body armor,, unique properties,, protection.

VIRTUALIZATION IN MISSION-CRITICAL OPERATIONS

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Background: The virtualization of mission-critical networks stands at the forefront of network engineering, driven by the need to simulate complex infrastructures in a secure and efficient manner. Utilizing VMware ESXi hypervisor technology provides a scalable and robust platform for such endeavors. This study progresses this field by crafting a virtual network architecture, comprising LAN, DMZ, and WAN segments, designed to address real-world operational contingencies and security concerns. **Objective:** The aim is to leverage virtualization solutions to optimize the mission network core, enhancing functionality and security. The research highlights the utilization of roaming profiles and services such as Domain Controllers with Active Directory, FTP and Mail servers, within the virtual environment orchestrated by ESXi. Furthermore, it assesses the implementation of an encrypted IPSEC connection between the virtual and physical LANs to ensure secure data transit. **Material and methods:** A comprehensive virtual network is engineered on the ESXi platform, integrating roaming profiles for user data consistency, a Domain Controller for centralized authentication, FTP and Mail servers for essential communication services. For encrypted communications, an IPSEC tunnel was established between the virtual LAN on ESXi and the physical LAN on a Cisco server. Additionally, a Cisco Unified Communications Manager (CUCM) server was configured along with two VOIP phones, enabling encrypted voice communication testing within the network. **Results :** The virtual network operated efficiently, maintaining user setting continuity through roaming profiles. The Active Directory and communication servers provided reliable service delivery, while the pfSense firewall ensured robust network security. The IPSEC tunnel effectively encrypted data between the virtual and physical LANs, thereby securing the critical link. The successful configuration of the CUCM server and VOIP phones allowed for secure and clear voice communications, which are vital for mission-critical operations. **Conclusions:** This study verifies the strategic importance of virtualization in creating advanced and secure mission-critical network environments. By integrating services such as CUCM and VOIP, alongside the existing network and security services, the research underscores the versatility of virtual networks to accommodate diverse communication needs. The secure IPSEC tunnel establishment between virtual and physical realms exemplifies a significant step towards operational excellence in network design, paving the way for future innovations in the field of network engineering.

Keywords: Network Virtualization, Encrypted Communication, Mission-Critical Networks, Network Scalability

EXPLORING BEAMFORMING: USING A PATCH ANTENNA

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Background: The project focuses on the design, simulation, development, and measurement of a 4-element patch antenna to integrate with a USRP N310 software-defined radio device for educational beamforming applications. The antenna's design was necessitated by the need to support four transmission channels on the USRP N310, facilitating the study of beamforming principles to enhance the efficiency and precision of radio transmissions. CST Studio Suite was utilized for antenna design and simulation, highlighting its importance in optimizing wireless transmission performance. **Objective:** The main goals included designing and simulating a 4-element patch antenna with a resonance frequency around 3.6 GHz, physically creating the antenna to study its characteristics, experimentally validating phase and amplitude modifications via a GNU Radio interface, and comparing simulated and actual radiation patterns to demonstrate beamforming principles. These objectives aim to improve radio transmission efficiency and precision. **Material and methods:** The process began with the theoretical exploration of patch antennas, focusing on their efficient signal manipulation for beamforming. CST Studio Suite was used for antenna design, ensuring dimensions were optimized for a 3.6 GHz resonance frequency. Physical realization involved laser printing of the antenna design on an FR-4 board, followed by experimental characterization using a vector network analyzer to measure antenna parameters and compare them with simulation results. **Results :** Experimental validation confirmed the antenna's resonance frequency at 3.53 GHz, slightly differing from the simulated 3.6 GHz due to real-world factors. The GNU Radio application was used to develop a user interface for

real-time control of signal phase and amplitude, with experimental validation of these controls through spectral analyzer and oscilloscope measurements. These results underscored the antenna's effective beamforming capabilities. **Conclusions:** The project successfully met its objectives, demonstrating the effective design, simulation, physical creation, and validation of a beamforming system. The experimentally determined resonance frequency and the validated control over phase and amplitude changes underscored the potential of beamforming technology in enhancing radio transmission efficiency. Future work aims to develop a reception system for further exploration of beamforming applications.

Keywords: Beamforming, Amplitude, Antenna, Phase

SECURING DIGITAL FRONTIERS: A SYSTEMATIC AND COMPARATIVE REVIEW OF VIRTUAL PRIVATE NETWORK PROTOCOLS IN CYBERSECURITY

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Background: As digital landscape proliferates with a multitude of cyber threats the urgency for resilient cybersecurity solutions escalates. Within this digital fortress, Virtual Private Networks serve as the vanguard, providing secure conduits for data transit. By harnessing the power of tunneling and encryption, VPNs deliver an imperative layer of security across the volatile terrains of the internet. This study delves into a detailed examination of major VPN protocols and will introduce the fundamental necessity of VPNs, their evolution, and their significance in the current cybersecurity framework. **Objective:** The core objective of this paper is to provide a systematic and comparative analysis of established VPN protocols - specifically, IPSec, OpenVPN and SSL. The intent is to dissect their conceptual frameworks, scrutinize their strategic implementations, and evaluate their operational performance in authentic cybersecurity contexts. A spotlight is cast on their distinctive strengths, potential weaknesses, and their suitability for various cybersecurity requirements. **Material and methods:** A literature review was conducted, pulling from academic databases, technical whitepapers, and cybersecurity reports. A comparative framework was established, focusing on protocol architecture, encryption standards, and reported vulnerabilities. Practical case studies regarding the deployment of these protocols in heterogeneous environments enriched our research with empirical insights. **Results :** The results reveal distinct trade-offs among the protocols. IPSec stands out for its strong encryption and authentication features but present challenges in configuration complexity. OpenVPN is revered for its versatility and robust security offerings, balanced with reasonable resource demands. In contrast, SSL, renowned for securing web transactions, is acknowledged for its user-friendly approach but is not without potential susceptibilities to cipher vulnerabilities. The detection of vulnerabilities is largely dependent on relentless monitoring, periodic audits, and the implementation of patches in a timely fashion. **Conclusions:** The paper concludes that the selection of a VPN protocol is not a trivial pursuit but one that demands a detailed comprehension of each protocol's operational mechanisms, strengths, and frailties. While IPSec is well-suited for extensive corporate networks demanding high-security protocols, OpenVPN shines with its adaptability and scalability. SSL, conversely, is ideal for scenarios prioritizing ease and speed. In the face of ever-evolving cyber threats, it is imperative that encryption technologies and vulnerability management practices advance in tandem. This study provides a strategic blueprint for entities aiming to tailor their VPN deployments to fulfill specific cybersecurity imperatives, thereby enhancing their resilience against cyber adversities.

Keywords: VPN, Encryption, Cybersecurity, Protocols

POSSIBILITIES OF IDENTIFICATION AND ANALYSIS OF THE COMPROMISING EMISSIONS FROM RADIO FREQUENCY SOURCES

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Background: This paper investigate the capture and analysis of compromising radio frequency emissions a relevant topic of information security and confidentiality in the era of advanced technology. In the omnipresent context of devices operating at radio frequencies, from wireless communications and internet to medical equipment and navigation systems, the paper addresses the security challenges posed by compromising emissions. The detailed analysis includes the electromagnetic spectrum and radio frequency sources, the role of electromagnetic compatibility in data protection, case studies on specific equipment, and advanced methods for measuring and

protecting against these risks. The paper contributes to the understanding and development of strategies to mitigate threats to information security in the modern digital world. **Objective:** The objectives of the paper focus on identifying and analyzing compromising emissions from radio frequency sources, assessing the risks they pose to information security, and developing effective methodologies for capturing and analyzing these emissions. The paper also aims to explore advanced technological solutions for protecting sensitive data against unauthorized interceptions, with the goal of improving electromagnetic compatibility and cybersecurity across various fields of application. **Material and methods:** To conduct the analysis of compromising radio frequency emissions, the paper utilizes advanced measurement methods, including monitoring the radio spectrum and using specialized equipment for capturing and demodulating signals. The materials include directional antennas, sensitive receivers, spectrum analyzers, and anechoic shielded chambers for testing in controlled environments. Additionally, specialized software is used for analyzing the data obtained, contributing to the identification of emission patterns and the development of protection solutions against unauthorized interceptions. **Results :** The results of the paper reveal the ability of advanced methods to effectively detect and analyze compromising emissions from radio frequency sources. The detailed analysis of the emissions identifies specific patterns and vulnerabilities in current information security systems. The implementation of the developed protection solutions significantly reduces the risk of unauthorized interceptions, thereby improving information security. The paper also highlights the importance of electromagnetic compatibility in effectively protecting data in the contemporary digital environment. **Conclusions:** The paper emphasizes the crucial importance of recognizing and combating compromising emissions to ensure information security. By demonstrating the effectiveness of capture and analysis methods, it highlights the need for continuous evolution of protection technologies in response to dynamically evolving threats. The focus on electromagnetic compatibility and the adoption of proactive strategies are essential for protecting sensitive data, thereby strengthening cybersecurity in an ever-changing technological landscape.

Keywords: Compromising emissions, Radiofrequency, Electromagnetic compatibility, Information security

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IMPLEMENTING SNMP-BASED MONITORING SOLUTIONS IN COMPUTER NETWORKING: STRATEGIES FOR OPTIMAL NETWORK MANAGEMENT

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Background: In the fast-moving world of digital technology, strong network monitoring is essential for companies to stay ahead and run smoothly. Tools that manage networks help businesses quickly adjust to changes in the market and boost their overall performance. This study looks into how SNMP-based monitoring tools, especially Check MK and Zabbix, work in a network that's built on virtual machines using the latest ESXi 8.0.2 software. **Objective:** The study aims to conduct a comparative analysis of Check MK and Zabbix within a virtualized network environment, evaluating their user interfaces, functionality, and the precision of the network data provided. Central to this research is understanding how each tool aligns with the requirements of modern network management, with a particular focus on the essential importance of ongoing network monitoring and the role of SNMP, a protocol extensively utilized for its reliability and scalability in network management across various platforms. **Material and methods:** In this research, a virtual network environment was created using ESXi 8.0.2 on a physical server, employing virtual machines to simulate a real-world network.In this environment, several types of network equipment have been created , establishing a comprehensive framework for the comparative analysis of Check MK and Zabbix. The study evaluated each tool from installation to routine operation, with a focus on user interface accessibility, integration ease, and the effectiveness of managing and adding network hosts, aiming to elucidate their relative merits in a contemporary, virtualized network setting. **Results :** The evaluation highlight Check MK's emphasis on user-friendly interfaces and plug-and-play functionality, alongside Zabbix's strong points in scalability and predictive analytics for extensive networks. Check MK is adept at quick setup and flexible monitoring, whereas Zabbix is performing in its capacity to manage large-scale network behaviors, showcasing the diverse strengths of each tool tailored to varied network management requirements. **Conclusions:** This research emphasizes the importance of choosing a network monitoring tool that not only have robust capabilities but also matches the unique needs of the network it monitors. With the increasing complexity of digital infrastructure, selecting the right monitoring tool is decisive. The study highlights the vital role these tools play in maintaining network reliability and contributing to the success of IT operations, underlining the significance of network monitoring and the essential function of SNMP in achieving these objectives.

Keywords: Network Monitoring, Simple Network Management Protocol, Check Mk, Zabbix

INVESTIGATION OF POWER ABSORPTION IN A HUMAN HEAD MODEL EXPOSED TO MOBILE PHONE SIGNALS: A CST STUDIO SUITE STUDY

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Background: The advent of 5G technology will give users of smartphones and similar devices access to high-speed wireless networks around the world. However, concerns about the potential health effects of electromagnetic radiation, including cancer and other health problems, can be alarming. To understand human exposure to electromagnetic waves, it is important to understand how 5G technology works. **Objective:** This study highlights the trade-off between efficient data transmission and the biological risks of exposure to electromagnetic fields. At 3.5 GHz, amplitude modulation poses the highest risk, particularly to the skin and eyes. Enhanced protective measures are essential in these areas to reduce radiation exposure. Future research will explore different modulation techniques and assess the feasibility of using antennas similar to those found in electronic devices, thereby advancing the implementation of 5G networks. **Material and methods:** Modern techniques for calculating electromagnetic energy absorption in the body involve the use of sophisticated mathematical algorithms and computing power. The body is divided into regions and the electric field components are calculated in each region. Specific absorption rate (SAR) values are then determined based on dielectric properties and geometry, providing insight into energy deposition. In this study, a detailed human head model with 17 tissues was used in CST Studio Suite 2019 to simulate different wave types for analysis. **Results :** During the preliminary investigation, it was found that continuous wave (CW) signals have the highest SAR values, particularly at the skin level. On the other hand, amplitude-modulated (AM) and quadrature amplitude modulated (QAM-64) signals exhibit similar SAR patterns, which are localized at the salivary gland level. In the second scenario, CW signals lead to increased SAR values in various tissues, such as the eye bulb, eye lens, skin, and blood, with significant differences compared to 64-QAM waves. Normalized SAR values indicate that AM waves pose higher health risks, especially in the coronal plane, while QAM signals are associated with lower risks. The order of data transmission efficiency, from highest to lowest, is QAM, AM, and CW. However, in terms of health risk, the order is reversed, with AM being the riskiest, followed by QAM and then CW. **Conclusions:** This study examines the balance between efficient data transmission and the potential biological risks of human exposure to electromagnetic fields. The findings suggest that at 3.5 GHz, amplitude modulation poses the greatest danger, particularly to the skin and eyes. Therefore, stronger protective measures are necessary in these areas to minimize radiation exposure.

Keywords: 5G-FR1 signal, continuous plane wave, amplitude-modulated plane wave, specific absorption rate

FUNDAMENTAL SCIENCES - PHARMACY

HDAC6 INHIBITORS

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Background: Histone deacetylases (HDACs) are a class of proteins which catalyze the removal of acetyl groups from lysine residues from both histone and nonhistone proteins, playing a key role in gene transcriptions as well as in all biological processes involving chromatin. Apart from their catalytic activity, HDACs also control other cellular processes such as apoptosis, angiogenesis, or chaperone function. Several classes of HDACs inhibitors have been synthesized and assessed using in silico or in vitro methods. The interest in HDACs inhibitors synthesis is increasing due to their potential anticancer activity. **Objective:** The study aims to cover relevant published literature from the last years, focusing on the important discoveries of HDAC6 inhibitors. **Material and methods:** Using PubMed, Wiley, Springer, ScienceDirect, and Reaxys database, we have reviewed the most relevant papers covering HDAC6 inhibitors, as well as some in silico docking studies for different ligands to get the best fit for HDAC6 inhibitors. **Results :** Before 1996, fewer than 100 papers were published in the field of HDACs. Since then, the number of articles has increased dramatically, with over 10,000 papers published on the topic, including more then 700 papers addressing HDAC6 and their inhibitors by 2023 and 2024. **Conclusions:** However, despite significant interest for the topic, challenges remain in optimizing their efficacy and minimizing off-target effects. New inhibitors are being designed using rational algorithms and even AI platforms. Nonetheless, the cumulative data from the last 15 years underscore the potential of HDACs as valuable tools in both basic research and clinical applications, emphasizing the need for ongoing exploration and refinement of these compounds for improved therapeutic outcomes.Acknowledgements: *This work was supported by the University of Medicine, Pharmacy, Science and Technology "George Emil Palade", Târgu Mureș, Research Grant number 293/14.01.2020*

Keywords: HDAC6 inhibitors, chromatin, anticancer drugs, histone deacetylase

PHARMACEUTICAL SCIENCES - PHARMACY

EXPLORING THE IN SILICO PRO-APOPTOTIC POTENTIAL OF TRITERPENE-TRIAZENE DERIVATIVES

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Background: Lupane-derived triterpenes are naturally occurring chemicals researched as fundamental frameworks for the synthesis of various semisynthetic compounds. Numerous such structures were reported as potential active agents, particularly against cancer. These structures have been found to primarily induce apoptosis in cancer cells by blocking the function of anti-apoptotic proteins (Bcl-2 and Bcl-XL). Triazenes are chemical structures that contain the -N=N-N- group. A wide range of compounds incorporating this functional group have been extensively investigated for their potential as anticancer agents in various tumour types. **Objective:** Our current project aims to develop a range of triterpene-triazene hybrid compounds that can theoretically inhibit the anti-apoptotic proteins Bcl-2 and Bcl-XL. **Material and methods:** Triterpene-triazene hybrids were generated by linking triazene functional groups to C30 of lupane-derived compounds such as lupeol (Lup), betulin (Bet), and betulinic acid (BA) (30-(Aryl-azo-R-amino)-triterpene; Aryl: phenyl, 1-naphtyl, or p-substituted phenyl rings; R: n-propyl, iso-propyl, n-butyl, iso-butyl, or H; triterpene: lupeol (Lup), betulin (Bet) or betulinic acid (BA)). The structure of Bcl2 and Bcl-Xl was obtained from https://www.rcsb.org/ (PDB IDs: 2W3L, 2YXJ). Molecular docking was employed using PyRX with Vina's scoring function. The triazene-triterpene hybrids, their parent compounds, and the native ligands (NL) were docked in the active binding site of each protein. The results were expressed as binding affinities (kcal/mol). The NL for each protein was employed as the primary positive control, with Lup, Bet, and BA serving as secondary controls for each subgroup. **Results :** In the case of Bcl-XL, some compounds showed higher binding affinities than their parent molecule or the NL (-10.8 kcal/mol). These include the 30-(1-naphtyl-azo-isopropylamino) (-11.6(BA), -11(Bet), -11.2(Lup) kcal/mol) and 30-(1-naphtyl-azo-amino) derivatives (-11(BA), -11.5(Bet), -12.1(Lup) kcal/mol) of all three triterpenes. Other BA hybrids that outperformed the NL were 30-(1-p-chloro-pheny-lazo-amino)-BA (-11 kcal/mol) and 30-(1-naphtyl-azo-isobutylamino)-BA) (-11.1 kcal/mol). In the case of Bcl-2, triterpene derivatives containing the 1-naphtyl-azo-isobutylamino group exhibited binding affinities close to the NL. A similar trend was observed for these compounds in the previous case (Bcl-XL), demonstrating that these structures have the potential to act as dual Bcl2/Bcl-XL inhibitors. **Conclusions:** Triterpene-triazene hybrids represent a promising scaffold for the development of new semisynthetic triterpenoids with increased pro-apoptotic-based antiproliferative activity. Future research will focus on the synthesis and biological evaluation of the most theoretically active compounds reported here.

Keywords: pentacyclic triterpenes, triazene derivatives, pro-apoptotic, molecular docking

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UTILIZING ARTIFICIAL INTELLIGENCE FOR DRUG DISCOVERY: A LITERATURE REVIEW

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Background: The process by which new drugs are obtained is an expensive and time-consuming one. In a society where medicine and technology intersect in surprising ways, a recent innovation could completely revolutionize the drug development process. Using advanced algorithms, artificial intelligence offers advantages that can be exploited in the field of new drug development, clearly demonstrating its undeniable use in the pharmaceutical industry. **Objective:** The purpose of the study is to examine how the application of artificial intelligence techniques helps to identify new therapeutic targets, predict drug properties, design *de novo* compounds or help generate new synthesis routes. For example, artificial intelligence systems are able to work with large data sets to investigate disease mechanisms and discover proteins or genes that can be targeted to treat these diseases. **Material and methods:** We analyzed articles from different databases (Embase, PubMed, Scopus, Reaxys, Google Scholar) to determine the stages at which artificial intelligence can be successfully used in the process of new drug discovery. As keywords, we used: "AI target discovery", "AI drug discovery", "AI clinical relevance", "revolutionizing drug discovery". The research method used is the analysis of specialized literature, therefore there are limitations such as: the lack of information about the progress made after April 2023, the rapid evolution of the field, the inaccessibility of some works, the subjectivity of the researcher in the interpretation of the data. **Results :** Starting with captopril and reaching NS018_055, the application of artificial intelligence techniques has shown to deliver many of the promised benefits: reducing discovery time and costs, increasing drug

accessibility, addressing conditions previously considered incurable.However, it takes time to gather data and analyze it so that the safety and effectiveness of these drugs can be demonstrated. Authorities require a significant amount of data before approving a drug, but NS018_055 was able to receive orphan drug approval from the FDA for use in the treatment of idiopathic pulmonary fibrosis. **Conclusions:** It is clear that artificial intelligence is progressing, paving the way to immediate personalized therapy, contributing to the development of a high-performance, non-toxic medicine tailored to the patient's needs, all in a very short time. As artificial intelligence systems continue to advance, the prospect of fully automated drug discovery looks set to become a reality, moving from uncertainty to future opportunity.

Keywords: drug discovery, artificial intelligence, personalized therapy, scientific advancements

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EVALUATION OF THE BIOLOGICAL ACTIVITY OF POLYPHENOLIC EXTRACTS OBTAINED FROM MACLURA POMIFERA (RAF.) CK SCHNEID BARK AND PERIDERM

Năstaca - Alina Coman[1], Corneliu Tănase[1]

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Background: The bark of *Maclura pomifera* tree, commonly used for natural dye extraction, is believed to harbor bioactive chemical compounds, although literature on this subject is limited. **Objective:** This research aimed to assess how various extraction methods influence the chemical and biological properties of extracts obtained from the rhytidome and periderme of Maclura pomifera **Material and methods:** Three different extraction methods were employed: microwave-assisted extraction, ultrasound-assisted extraction, and sonicator-assisted extraction. The extracts were characterized by determining total polyphenol content, and their antioxidant capacity was evaluated using DPPH and ABTS assays. Antimicrobial effects were tested against bacterial strains, while inhibition of enzymatic activity was assessed for α-glucosidase and α-amylase. **Results :** Results highlighted lower polyphenol content in periderm extracts compared to rhytidome extracts. The highest antioxidant activity was observed in rhytidome extracts using the DPPH method with microwave-assisted extraction, while ultrasound-assisted extraction yielded the most significant activity in ABTS assays. Ethanol extract of rhytidome obtained through sonicator-assisted extraction exhibited the strongest inhibition of enzymatic activity. Additionally, rhytidome extracts displayed pronounced antibacterial potential, emphasizing the utility of this plant as a source of bioactive compounds for various applications. **Conclusions:** The obtained results support the potential use of Maclura pomifera rhytidome and periderme as a source of polyphenols with biological activity and provide a preliminary basis for further indepth studies needed to elucidate the mechanisms involved in the biological activity of the phytopreparations derived from these matrices.ACKNOWLEDGMENTS:This work was supported by the University of Medicine, Pharmacy, Sciences and Technology "George Emil Palade" of Târgu Mureș, Research grant number 164/12/10.01.2023

Keywords: Polyphenols, Antioxidant activity, Antibacterial activity, Enzyme activity

POSTER - SURGICAL

SURGICAL MANAGEMENT OF A COMPLEX ABDOMINAL WALL HERNIA

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Introduction: An abdominal wall hernia is defined as a muscular and fascial defect through which its contents protrude. It may lead to severe complications including intestinal wall ischemia, bowel perforations resulting in sepsis and, ultimately, multiple-organ failure. **Case Report:** A 54-year-old female patient known with a twelve-year-old umbilical hernia, primary hypertension, as well as chronic gastritis, presents at the Emergency Room complaining of loss of appetite and a large periumbilical mass with extension into the right flank, irreducible through taxis and associating Celsian signs. The mass is sensitive both spontaneously and upon palpation, without abdominal tenderness. The patient is febrile and hypotensive. The laboratory results indicated: mixed alkalosis, dyselectrolytemia, leukocytosis with neutrophilia, and inflammatory syndrome. The ultrasound revealed a significant supraumbilical aponeurotic defect accompanied by a hernial sac containing small bowel loops and ecogenities indicative of a highly suspicious intrasaccular abscess. A computer tomography (CT) scan was performed, revealing the presence of three hernia sacs: one located cranially containing the transverse colon and omentum, another caudally housing bowel loops, and a third positioned in the right flank containing transverse colon, cecum, bowel loops and omentum. In the hernia sac located in the right flank , there is evidence of a bowel loop characterized by uniformly thickened walls, moderate iodophilia, and the presence of hydroaeric levels. Also, the aspect of the periumbilical subcutaneous tissue is suggestive of cellulitis. Following proper hydroelectrolytic and acid-base equilibrium restoration, surgical intervention is performed. Intraoperatively, three hernia sacs with the contents described on CT and extensive adhesion syndrome are detected. Cecal necrosis with perforation is observed, with fecal matter in the hernial sac. Necrosis with perforation is also present on the transverse colon at the hepatic flexure level, as well as multiple abscesses in the transverse mesocolon. Extensive adhesiolysis is undertaken, followed by a right hemicolectomy with a terminal ileostomy in the right flank and a mucous fistula in the left flank. The intervention ends by vacuum assisted closure. Four months later, the transit reintegration is achieved through a mechanical lateral-lateral ileo-transverse anastomosis. **Discussions :** The particularities of this case consist in the late presentation with a complex hernia complicated by occlusion, perforation, fecaloid abscesses. Vacuum therapy played an important role, considering the significant parietal defect and the subcutaneous infection associated. **Conclusions:** A substantial abdominal wall defect escalate the risk of strangulation. Hence, timely intervention is imperative in cases of large hernias complicated by occlusion.

Keywords: Complex hernia, Occlusion, Vacuum assisted closure

A RARE CASE OF VOLVULUS CAUSED BY INTESTINAL OBSTRUCTION WITH A FOREIGN BODY

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Introduction: Small bowel volvulus(SBV) is the torsion of the small bowel and its mesentery, and it is a medical emergency. It is categorized as primary or secondary type. Primary SBV is defined as torsion of a segment of the small bowel at the mesentery basis without any evident underlying cause; secondary SBV occurs in the presence of an acquired condition, such as congenital malrotation, postoperative adhesions, and diverticular disease. **Case Report:** In this paper, we present the case of an 80-year-old male patient who came to the emergency department with diffuse abdominal pain, nausea, and vomiting. From the personal pathological history, we note the cholecystectomy in 2009, hypertension, and peripheral polyneuropathy. The objective examination revealed a distended abdomen, above the xipho-pubic plane, very sensitive at palpatory examination. Abdominal CT examination revealed intestinal jejunal loops depleted of semifluid content with a luminal diameter of 3 cm and only minimal aerial content, sketching 2 small hydroaeric levels; diverticulums on a small segment of the jejunum, and multiple colonic diverticulosis throughout. It was decided that the patient needed medical-surgical care. The surgical intervention began with exploratory laparotomy followed by the sectioning of the bridle that was caused by post-operatory adhesions. The adhesions contributed to the formation of SBV. Since the intestine was viable detorsion was needed. During the intervention, a compact foreign body of spherical shape was discovered in the small intestine and removed. The foreign body revealed itself after extraction as chicken bones. **Discussions :** The fibrous adhesions may have originated from previous surgery and/or inflammation induced by the multiple

diverticulum found along the patient's bowel. The adhesion bands caused obstruction in the small bowel and promoted the unusual formation of the mass of bones that fortunately did not perforate the intestine. Clinical presentation of volvulus is usually nonspecific unless an acute small bowel obstruction occurs, which in this case was most likely caused by the foreign body. **Conclusions:** In summary, we presented a case of small bowel volvulus that may be categorized as the secondary type. Early surgical treatment is essential for small bowel volvulus and we should raise suspicion for small bowel volvulus when a patient displays symptoms such as upper abdominal pain, vomiting, and tenderness.

Keywords: volvulus, foreign body, small bowel, diverticulum

CONFRONTING CHALLENGES: SURGICAL RESOLUTION OF GIANT FRONTAL SKIN TUMOR AND ISCHEMIC STROKE

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Introduction: We present the case of a 70-year-old male, with a giant, ulcerated, infected skin tumor in the frontal region extending to the right brow. The tumor infiltrated the front wall of the frontal sinuses. Additionally, the patient had a history of ischemic stroke with right infarct, hypertension, previous splenectomy, and cachexia. Tumor-associated risk factors for stroke include tumor size, location, and the biology of the neoplasm. The association of tumor volume relates to the risk of edema-related compression of blood vessels, resulting in diminished blood flow or complete occlusion of arteries, potentially leading to hypoperfusion or ischemic stroke. **Case Report:** The patient underwent surgical intervention. The surgical procedure involved a circumscribed incision of the tumor formation followed by excision with macroscopic margins of oncological safety. Five pieces were excised, including the skin tumor in the frontal region, contents of the right frontal sinus, periosteum, nasal pyramid tissue, and the anterior wall of the frontal sinus. Curettage and eschylectomy were performed. Invasion with lysis of the anterior wall of the frontal sinuses was detected. Hemostasis was achieved, and two passive drains were installed at the level of the frontal sinuses. A local flap rotated on the left temporal pedicle from the parietal level was used to cover the remaining skin defect and soft parts. The flap donor area was covered with a split-thickness skin graft harvested from the front right thigh. Postoperatively, the patient's wound exhibited favorable evolution, with clean wound healing and viable flap and graft integration. The wound showed no signs of inflammation or infection. The patient was recommended to maintain sterile, dry dressing, with dressing changes every 2-3 days and to adhere to prescribed medications. **Discussions :** The surgical management of the giant ulcerated frontal skin tumor with frontal sinus infiltration and ischemic stroke was successful. Complete excision with oncological safety margins was achieved. The patient's postoperative course was uneventful, and he was discharged with recommendations for follow-up care. It is essential to consider tumor-associated risk factors, such as tumor size and location, in patients with concomitant ischemic stroke, as they may influence treatment decisions and outcomes. **Conclusions:** This case highlights the successful surgical resolution of a complex condition involving a giant frontal skin tumor with frontal sinus infiltration and concomitant ischemic stroke. Through meticulous surgical techniques and multidisciplinary care, complete excision and favorable postoperative outcomes were achieved. Continued vigilance and follow-up care are crucial in managing such cases effectively.

Keywords: #giantskintumor, #ischemicstroke, #surgicalmanagement

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PRESERVING FACIAL HARMONY: SURGICAL APPROACH TO INFILTRATIVE ULCERATED BASAL CELL CARCINOMA OF THE NASAL TIP

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Introduction: Basal cell carcinoma (BCC) is the most common type of skin cancer, typically arising on sun-exposed areas such as the face. Infiltrative ulcerated BCCs, characterized by their invasive nature and propensity for tissue destruction. The nose, being a prominent facial feature, holds particular importance in terms of cosmetic appearance and function. A successful outcome in the treatment of nasal skin tumors is crucial for preserving facial aesthetics and restoring patient confidence. **Case Report:** The case involves a 54-year-old female with an infiltrative ulcerative skin tumor at the tip of her nose. Her medical history included previous epileptic crises,

hypertension, and obesity grade III, complicating the clinical scenario. Given the potential for tumor progression and the impact on facial aesthetics, prompt surgical intervention was deemed necessary. Surgical excision under general anesthesia was performed, employing precise incisions to delineate tumor margins and ensure oncological safety. Five pieces were excised: the skin tumor, columella, right and left alar cartilage margins, and re-excision of the right columella to ensure complete removal of the tumor. Reconstruction of the nasal structures was achieved using cartilage harvested from the right auricle. Local flaps rotated from bilateral infranasal levels and a local pedicled nasolabial flap rotated to the right were utilized to reconstruct skin and soft tissue defects. Postoperative recovery showed favorable wound healing. Histopathological examination revealed an infiltrative basal cell carcinoma incompletely excised laterally and in depth, with involvement of the columella, right alar cartilage margin, and re-excised right columella. **Discussions :** The surgical management of the infiltrative ulcerative skin tumor at the tip of the nose was successful in achieving tumor removal and reconstruction of nasal structures. However, the incomplete excision of the carcinoma in certain areas underscores the need for vigilant postoperative monitoring and consideration of further management strategies. The use of auricular cartilage for reconstruction proved effective in restoring nasal anatomy and preserving facial aesthetics. Close follow-up and additional interventions may be necessary to ensure optimal oncological control and patient satisfaction in the long term. **Conclusions:** In conclusion, the case illustrates that, in complex cases of nasal skin cancer the preservation of facial harmony and patient satisfaction can be achieved through meticulous surgical techniques and careful consideration of reconstructive options. It also underscores the importance of maintaining vigilance for residual disease and considering further interventions as necessary to optimize patient outcomes.

Keywords: basal cell carcinoma, nasal reconstruction, surgical management

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LATERAL FEMORO-TIBIAL BYPASS - A LAST RESORT IN THE LOWER LIMB SALVAGE

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Introduction: Peripheral arterial disease (PAD) is an atherosclerotic-driven condition that reduces the flow of blood in peripheral arteries. It remains underdiagnosed and undertreated. Early revascularization is crucial in this situation, and rapid intervention is necessary, utilizing the best option for each patient individually. **Case Report:** We present the case of a 73-year-old male patient, known to have peripheral arterial disease, grade II hypertension, type II diabetes mellitus, and chronic smoking history, who presents for a scheduled appointment at the Vascular Surgery Clinic with claudication pain occurring at distances shorter than 10 meters in the left lower limb. Angio-CT reveals occlusion of the superficial femoral artery, popliteal artery, and left tibial-peroneal trunk. Surgical intervention was performed on August 21, 2022, involving extended femoro-popliteal distal axis thromboendarterectomy with arterial flow restoration and angioplasty using a bovine pericardial patch at the level of the popliteal artery. Post-operatively, symptoms improve, and the patient shows favorable progress in the first six months, with a subsequent progressive reduction in walking distance and the onset of rest pain, leading to readmission on February 21, 2023. Due to the occlusion of the tibia-peroneal trunk and post-operative fibrosis, it is decided to perform an anterior femoro-tibial bypass with extra-anatomic tunneling of the graft through the outside of the leg. Subsequently, the patient is discharged five days post-operation, and at the 6 and 12-month follow-up appointments, the bypass remains patent with no signs of restenosis and absence of symptoms. **Discussions :** Endovascular treatment is the preferred option for severe stenoses and short occlusions, while surgical treatment is recommended for long occlusions. The patency of below-the-knee arteries is crucial for both treatments. The Extra-Anatomic Femoro-Tibial Bypass is an alternative intervention for lower limb salvage in peripheral arterial disease. It has a favorable prognosis compared to thromboendarterectomy. Hopefully, prediction models will further improve the long-term results of this procedure in the future. **Conclusions:** In conclusion, peripheral arterial disease associated with type 2 diabetes mellitus remains hazardous, representing a common cause of amputation. The extra-anatomic bypass is a feasible solution that can be applied in well-selected cases to save the limb instead of amputating it, with excellent outcomes reflected even after 12 months post-intervention.

Keywords: Peripheral arterial disease, lower limb revascularization, vascular surgery, Extra-Anatomic Femoro-Tibial Bypass

EFFECTIVENESS AND ACCURACY OF MAGNETIC RESONANCE IMAGING-ULTRASOUND FUSION TARGETED PROSTATE BIOPSY – CASE REPORT

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Introduction: Multiparametric prostate magnetic resonance imaging has emerged as an accurate modality for detecting prostate cancer. Fusion of ultrasound with magnetic resonance imaging allows urologists to progress from blind, systematic biopsies to biopsies, which are mapped, targeted and tracked. The aim of this case report is to highlight the importance of using MRI-US fusion targeted prostate biopsy. **Case Report:** We report the case of a 55 years old male patient with mild lower urinary tract symptoms and PSA level of 5,21 ng/ml. Pelvis MRI scan revealed one lesion classified as PI-RADS 4 in the transition zone of the right prostatic lobe. MRI-US targeted and systematic prostate biopsy was performed. **Discussions :** Prostate adenocarcinoma was found in histopathological findings, small lesion of 1mm Gleason score 3+4=7 (grade 4: 5%), grade group 2 from targeted biopsy and normal tissue in systematic ones. **Conclusions:** MRI-US fusion offers a way to localize and sample suspected cancer with precision. Biopsy results obtained with the fusion devices compare favourably with results obtained with ultrasound alone.

Keywords: MRI-US fusion targeted prostate biopsy, Prostate adenocarcinoma, PSA, PI-RADS

THE IMPORTANCE OF MAGNETIC RESONANCE IMAGING IN DESCRIBING TUMOR THROMBUS EXTENSION IN A PATIENT WITH RIGHT RENAL TUMOR CT3BN1M0 AND CHRONIC KIDNEY DISEASE

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Introduction: MRI is an advanced technique used together with CT in the diagnosis and evaluation of renal tumors, including those with IVC (inferior vena cava) thrombus. MRI can establish the extent of venous thrombus in the IVC and categorize it into one of the grades of Mayo classification. CT provides comparative information only with intravenous contrast administration. **Case Report:** A 70-year-old patient with multiple comorbidities (including chronic kidney disease) was admitted to the Urology Clinic complaining of intermittent right lumbar pain. Following native CT abdomen-pelvis (creatinine 2.22 mg/dl), an isodense, heterogeneous mass with a polycyclic contour was identified in the right kidney measuring 88x104x64 mm, showing infiltrative aspects of perirenal fat, invasion of the posterior renal fascia, and laterocaval lymphadenopathy. No anomalies were described in the right renal vein or the inferior vena cava ,,sic". Due to the unavailability of MRI, Doppler ultrasound, the only available option in hospital, revealed a thrombus in the right renal vein with a 1 cm extension into the IVC. Laparoscopic right radical nephrectomy was attempted but converted to open surgery due to the size of the tumor thrombus in the IVC, requiring an extended subcostal bilateral xiphoid-pararectal incision. Intraoperatively, an enlarged caliber of the IVC, non-compressible up to the suprahepatic veins, was detected. The release of the liver is practiced, then Pringle maneuver, cavotomy with thrombectomy of a tumor thrombus of approximately 10 cm is performed. Postoperatively, the evolution was favorable with improved renal function (creatinine 1.78 mg/dl) and ,,per primam" healing. **Discussions :** For the benefit of a faster postoperative recovery, a laparoscopic approach was chosen, but it was converted to open surgery when the size of the thrombus in the IVC proved to be much larger than was described in Doppler ultrasound. **Conclusions:** MRI plays a crucial role in establishing the preoperative diagnosis of renal tumors, especially when contrast-enhanced CT or cavography are not viable options, or in the context of limited experience in using Doppler ultrasound.

Keywords: Right renal tumor, IVC thrombus, Doppler, MRI

SILENT URETERAL STONE AS A LEADING CAUSE OF NEPHRECTOMY.

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Introduction: Urinary stones are an important cause of morbidity in the US. More than 500,000 people are affected yearly, with a female gender prevalence and an age group ranging from 30 to 50 years old. Urinary tract stones are usually diagnosed in the emergency department where the symptomatic patient is admitted due to renal colic, a common symptom of ureterolithiasis. It is also true that ureteral stones can be silent for many months, leading to nephrectomy. **Case Report:** 69-years-old female patient, known with primary hypertension and chronic ischemic heart disease, under treatment with metoprolol, perindopril-indapamin and lercadipin; presented to the urology clinic ER complaining of colicky pain on the right side. She also had fever, shivering, nausea, vomiting and dysuria. At presentation the analyses were in normal range and uroculture was negative. The patient medical history reveals an increased cholesterol level, increased ESR, increased urea and a eGFR of 71.39 ml/min. From her surgical history emerged that she had a laparoscopic cholecystectomy. The Computed Tomography (CT scan) revealed a normal left kidney and an atrophic right one, with a decreased parenchymatous index (6mm) and pelvic hypotonia at the level of the caliceal groups, without kidney stones. In the right ureter, the CT showed a voluminous radiopaque mass measuring 48x12mm. Abdominal aortic calcifications were also noted. After repeated analyses, the eGFR was 81.34 ml/min, the ESR was 55ml/h, the cholesterol level was high and the urine culture tested positive for E. Coli, treated with antibiotics. Due to lack of symptoms, the patient developed a large calculus in the right ureter, which caused a hydroureter and a subsequent atrophization of the right kidney. The patient was referred to the surgeon for a nephrectomy. **Discussions :** The peculiarity of this case is that a large stone went unnoticed for years because the patient did not develop any symptoms. This led the patient to the operating room for a laparoscopic nephrectomy. The reason behind this surgical decision was to avoid recurrent UTIs, which could have exposed the patient to sepsis. **Conclusions:** Asymptomaticity was deleterious for this patient as it laid the foundations for the development of a silent change in the kidney structure, narrowing treatment options to surgery alone. It is possible to say that the nephrectomy could have been avoided if the stone had been caught earlier by being symptomatic. After surgery the patient was discharged in good conditions.

Keywords: Asymptomaticity, Ureteral stone, Laparoscopic nephrectomy

LEFT GIANT LOCALLY ADVANCED COLON NEOPLASM WITH MASSIVE METACHRONOUS METASTASIS OF LIVER SEGMENTS VII-VIII AND POST CHEMOTHERAPY SINUSOIDAL OBSTRUCTION SYNDROME IN A LYNCH SYNDROME PATIENT

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Introduction: Colorectal cancer is the third most common cancer, with inherited mutations causing 5-10% of cases. Lynch syndrome represents the most common form of hereditary colorectal cancer.Surgery's aim was to avoid complications, prolong survival and improve the quality of life of a patient with colon cancer, the first in their family to be diagnosed with Lynch syndrome. An initial intervention removed a huge locally advanced colon tumor and later the patient underwent hepatic surgery for a metachronous secondary tumor. **Case Report:** We present a 55-year-old patient initially diagnosed with a giant tumor of the left colon, requiring complex surgery. Comorbidities included: anemia, hypertension, diabetes, obesity. Subsequently the patient developed a massive liver metastasis in segments VII-VIII. Initially, surgery consisted of en bloc resection of the colonic neoplasm with the invaded structures, the resection being performed in healthy tissue: the greater omentum, left perirenal fat, left transverse abdominal, internal oblique, and iliopsoas muscles, along with lifting with the specimen the ganglia and fatty tissue and the vegetative nerve plexuses located anteriorly to the major vessels. Ureterolysis was facilitated by the presence of a preoperatively inserted left ureteral stent, enabling for ureter preservation. Digestive reconstruction was performed simultaneously by a transverse-rectal latero-lateral anastomosis. Follow up imaging revealed a massive secondary liver tumor occupying segments VII-VIII. The patient developed meanwhile hepatic steatosis along with sinusoidal obstruction syndrome secondary to chemotherapy. Liver volumetry showed the need for a

60% liver parenchymal sacrifice with right hepatectomy, not compatible with patient's survival in this context. Therefore, an anatomical hepatectomy of segments VII-VIII was performed. Resection margins were tumor free, and the liver parenchymal sacrifice was minimal. **Discussions :** Postoperatively, there was a right pneumothorax, which was successfully drained. Liver function remained adequate. **Conclusions:** The patient is in good general condition, eating normally, with motor autonomy and an ECOG status of 1 and carries on with chemotherapy as well as clinical and imaging follow-up, with treatment facilitated by the presence of an implanted port-a-cath installed in 2019. Genetic tests confirmed the presence of Lynch syndrome.

Keywords: Lynch syndrome, sinusoidal obstruction syndrome, hepatic volumetry, anatomical hepatic resection

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UNIQUE FLAP FOR LOWER EYELID RECONSTRUCTION AFTER BASAL CELL CARCINOMA EXCISION

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Introduction: Basal cell carcinoma (BCC) is the most common type of eyelid cancer and it is a challenging pathology due to its proximity to functionally essential organs. Excision requires meticulous reconstructive techniques that ensures good functionality and aesthetic results. Early diagnosis and complete excision of the primary lesion are crucial to prevent further complications such as local infiltration and recurrences. **Case Report:** We bring forward the case of a 55-year-old male that was admitted in Plastic and Reconstructive Surgery Compartment of Târgu-Mureș with a left lower eyelid cutaneous tumour. After surgical removal, the histopathological exam revealed a mixed BCC (nodular and infiltrative) with free resection margins (tumoral cells at 0,6mm from the lateral excision site). The tarsal plate was reconstructed using a cartilage graft harvested from the left auricular pavilion with good postoperative healing and minimal ectropion formation. Four months later a recurrence occurred at the exact same site of surgical excision of the primary lesion. The treatment consisted of a more radical excision with extemporaneous examination (all tissue samples were tumour-free), with the main part being sent for final histopathological exam. Reconstruction of the left lower eyelid consisted of a pediculated full thickness cutaneous-musculo-tarso-conjunctival flap harvested from the left upper eyelid. Sutures in anatomical planes were used. **Discussions :** An understanding of the anterior and posterior lamella of the eyelid is critical in eyelid reconstruction. The anterior lamella includes the skin and orbicularis oculi muscle, while posterior lamella includes the conjunctiva and tarsus. For full-thickness defects, thus in our case, it is important to address reconstruction of both the anterior and posterior lamella. Free anterior and posterior lamellar repairs are not commonly performed together, as it might compromise the vasculature. Our noteworthy unipedicular flap provides a replacement for both the anterior and the posterior lamellae including skin, muscle, tarsus and conjunctiva. Even though cicatricial changes with healing can sometimes predispose the lower lid to cicatricial ectropion, our patient's postoperative evolution was favourable, with no infection, flap failure, significant scar tissue formation or ectropion. **Conclusions:** There are various methods for the reconstruction of the lower eyelid; customizing the reconstruction is necessary to provide proper results for each patient. The primary goal is to completely remove the tumoral mass, while the most important secondary objectives are to restore a functional eyelid and to obtain a normal appearance because of the critical importance of periocular region in social relationships.

Keywords: basal cell carcinoma, eyelid reconstruction, ectropion, pediculated flap

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MASTERING SCALP RECONSTRUCTION: UNVEILING THE POTENTIAL OF ROTATIONAL LOCAL FLAPS

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Introduction: In scalp reconstruction, the utilization of local rotational flap represents a cornerstone in the surgeon's experience. These techniques offer a versatile approach to scalp defects, ranging from traumatic injuries to oncologic resections. Rotational flaps provide the advantage of utilizing nearby tissue with similar characteristics, ensuring optimal aesthetic outcome and functional restoration. By utilizing the topographic characteristics of the scalp this method guarantees effective wound closure and reduces complications. **Case Report:** The aim of this case report is to present the case of a 54-year-old patient, known with a closed head

injury. He was firstly operated in the neurosurgical department in 2023 with bifrontal abscess and subdural empyema evacuation, left frontal osteolytic lesion resection and treatment for osteomyelitis with micro abscess formation. He now refers to plastic surgery department with scalp avulsion and bone tissue exposure on the frontal region. **Discussions :** The patient is admitted in the Plastic Surgery department for preoperative checkups (cranial CT scan, blood tests, cardiologic and neurosurgical consultation). The scalp's limited elasticity prohibits the direct closure of moderate-sized defects. After adequate preoperative preparation, the following procedures were performed: after the surgical debridement, the size of the defect was assessed, and a flap of matching diameter was outlined next to it. When designing the rotational flaps, it is important to plan for a slightly larger size to accommodate their rotational movement. Careful elevation of the flap within the subgaleal plane is performed, ensuring preservation of the underlying vascularized pericranium. The flap is fixed to the adjacent tissue around the defect and the remaining tissue defect was covered with a split-thickness skin graft (STSG) obtained from the left thigh using a dermatome. The skin graft was attached to the periosteum of the donor site, and a compressive ,,tie-over" was applied. Avoiding the complications (hematoma, seroma) an active drainage was used under the local flap. The postoperative local evolution was satisfactory, with no vascular complications regarding the rotational flap and a viable skin graft. At discharge the patient was stable, with no local complications. He left the compartment with the following recommendations: compressive ,,tie-over" dressing for 48 hours, antibiotic therapy, avoiding physical activity and local traumas. **Conclusions:** The reconstruction process can be done in a single step surgery, reduces the risk of complications and minimizes scarring. Several publications with 13 month follow up support that this can be particularly important in patients with significant medical comorbidities who cannot tolerate a lengthy operative procedure.

Keywords: rotational flap, scalp reconstruction, plastic surgery, posttraumatic reconstruction

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MANAGEMENT AND COMPLICATIONS OF UPJ SYNDROME

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Introduction: Ureteropelvic junction (UPJ) obstruction is defined as an obstruction of the flow of urine from the renal pelvis to the proximal ureter. Congenital abnormalities may be observed in both adults and children, but adults may also present with UPJ obstruction secondary to surgery or other disorders that can cause inflammation of the upper urinary tract. In adults, other etiologies must be considered, including stones, ureteral compression due to extrinsic processes, retroperitoneal fibrosis, and other inflammatory processes. The obstruction leads to hydronephrosis. Presenting signs and symptoms include palpable mass, intermitted pain, hematuria, urinary infection, fever, hypertension and renal stones. **Case Report:** The aim of this report is to describe the case of a 50 years old male patient who came to Urology Clinic known with multiple left renal lithiasis, ureteropelvic junction syndrome on the left, left malrotated kidney with left autostatic stent. The patient has history of surgical interventions, diagnosed with dyslipidemia, diabetes mellitus type 2 and acquired renal cyst. **Discussions :** A PCNL and flexible ureteroscopy were attempted on the left side but they were unsuccessful. The next step for this patient will be laparoscopic surgery with pyelolithotomy and pyeloplasty. **Conclusions:** Patient discharged with good general condition, afebrile.

Keywords: Ureteropelvic junction syndrome, Malrotated kidney, Renal stones

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SUDDEN ONSET GIANT PSEUDOANEURYSM IN SUPERFICIAL FEMORAL ARTERY POST SEPTIC SHOCK - CASE REPORT

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Introduction: Pseudoaneurysm of the superficial femoral artery is a condition that typically occurs as a complication after an invasive procedure on that area, and in rare instances, due to an infectious cause or connective tissue disorder. **Case Report:** We present the case of a 56-year-old man who has a history of hypertension, mild mitral insufficiency, chronic smoking, and bilateral primary coxarthrosis. The patient was hospitalized several times in the general surgery service of SCJU Sibiu due to septic shock caused by a

retroperitoneal abscess. Three months later, the patient complained of pain in the middle 1/3 of the left thigh, with a burning character and the appearance of a voluminous pulsating formation after minimal effort. Upon hospitalization in our service, a computer tomography angiography revealed a giant pseudoaneurysm of 48 mm in diameter. We performed surgery to remove the pseudoaneurysm and reconstruct the superficial femoral artery with a great saphenous vein graft. The patient was discharged on the third post-operative day. The left femoral-popliteal axis was permeable at the six-month follow-up, and the patient had no symptoms. **Discussions :** Currently, pseudoaneurysm treatment can be divided into three categories: noninvasive treatment, interventional treatment, and traditional surgical treatment. Noninvasive treatment includes local compression therapy, which is a simple method that can be effective in cases where the pseudoaneurysm is small and the maximum diameter does not exceed 2 cm. Interventional therapy mainly involves percutaneous puncture or intra-arterial catheter injection of procoagulant drugs, coil embolization, and endovascular exclusion. Traditional surgical procedures are used to remove pseudoaneurysms and reconstruct damaged blood vessels. **Conclusions:** In conclusion, pseudoaneurysm of the superficial femoral artery is a rare condition caused by sepsis but poses a high risk of rupture and hemorrhagic shock. Due to its large diameter, using a stent graft to treat this condition would result in a permanent, prominent formation, which would affect the patient's quality of life. Moreover, since the patient has a history of sepsis, the use of a synthetic prosthesis for reconstructing the arterial axis is not recommended.

Keywords: #Peripheral Arterial Disease, #Lower limb Revascularization, #Vascular surgery Pseudoaneurysm, #Superficial Femoral Artery

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AN EPISODE OF SEVERE DEPRESSION: NON-FATAL SUICIDE ATTEMPT BY SELF INFLICTED STAB WOUND IN THE RIGHT VENTRICLE

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Introduction: Penetrating heart wounds refer to all traumatic cardiac injuries secondary to penetrating action, the leading cause are stab wounds and gunshot wounds, succeeded by accidental or non- accidental implements. The main symptoms in this kind of trauma ranging from complete hemodynamic stability to cardiac arrest. **Case Report:** A 58-year-old male patient transported urgently with the helicopter to the SMURD of the Targu Mures Hospital, with a penetrating chest wound involving the right ventricle through self- stab and cardiac tamponade. Victim of two consecutive cardiac arrests, who responded positively only after the pericardiocentesis. In the emergency department a CT scan was performed, which showed: an epigastric penetrating metallic foreign body with the distal end at ventral pericardial level, with associated hemopericardium and high suspicious of contusion - pericardial and myocardial. The patient underwent to an emergency surgical intervention in the Cardiology Department, where the right ventricular wound is sutured with insulated wires reinforced with a Teflon patch. The pericardial collection was evacuated, with a favorable subsequent postoperative evolution. A post operative X-Ray, echocardiography and an ECG were performed which highlighted an atrial fibrillation and an antiarrhythmic treatment with Cordarone was instituted. The patient was discharged from the Cardiology department after 6 days, he was completely afebrile, hemodynamically and respiratory stable, the surgical wounds were healing correctly. Based on the result of the psychiatric consult which reveal: a severe depressive mood, prevalent maniac ideas of self-devaluation and, negative projections about the future, lack of energy in the performance of activities and denied the attempt to suicide; he was transferred at the Psychiatric Clinic. **Discussions :** A clinical scenario of penetrating cardiac wound needs a promptness management for increase the survival chance of the patient. The possible complications could be hypovolemic shock due to the hemorrhage, cardiac tamponade, arrhythmias, myocardial infarction, endocarditis or mediastinitis, pulmonary embolism and even neurological complications. Cardiac tamponade, even if contributing to rapid mortality, is an early opportunity for survival. According to our clinical case is essential to menage the main cause that conduct the patient to commit a suicide: the major depressive disorder. **Conclusions:** Penetrating cardiac injuries (PCI) are mostly fatal with mortality rate of around 16%-43%. Emergent management is crucial for patients presenting with PCI. The definitive treatment being surgical drainage of pericardial blood and repair of underlying cardiac injury.

Keywords: heartstabwound, majordepressivedisorder, nonfatalsuicide, pericardiocentesis

A COMPLICATED CASE OF OSTEODISCITIS TREATED WITH A SIMULTANEOUS ANTERIOR AND POSTERIOR FIXATION

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Introduction: Osteodiscitis, a spinal infection occurring between the discs, predominantly manifests in the lumbar and thoracic regions, with occurrences in the cervical spine being comparatively rare. However, cervical spondylodiscitis can precipitate a more rapid progression, potentially resulting in significant neurological impairments. **Case Report:** A 52-year-old male with a history of chronic cervicalgia and minimal left C5 root foraminal stenosis presented with aggravated cervical vertebral pain, radiating to both upper limbs, accompanied by decreased muscle strength (3/5), and bilateral hypoesthesia, and paresthesia in the C6, C7, and C8 dermatomes. Symptoms emerged three weeks before admission, intensifying over the last three days. Upon presentation to the UPU SMURD service, MRI of the cervical spine revealed osteodiscitis at the C3-C4 level, with a compressive epidural collection impinging on the dural sac. MRI STIR sequences depicted heightened edema in the C3-C4 vertebrae. The patient underwent surgical intervention at the Targu Mures Neurosurgery Department, involving posterior cervical approach with posterior C2-C5 lateral mass fixation and anterior subsequently a cervical approach with total discectomy of C3, decompression of the dural sac, insertion of a C3-C4 intervertebral cage, and fixation with an anterior plate and screws. Infection with Staphylococcus Hominis was noted, necessitating initiation of Vancomycin therapy. The patient was discharged 14 days following surgery, with resolved motor and sensory deficits, and no signs of wound complications. **Discussions :** Surgical management of cervical osteodiscitis remains controversial, with options ranging from anterior, posterior, to combined circumferential decompression with or without instrumentation. Anterior cervical approach with debridement, decompression and fusion provides good outcomes, although circumferential fixation may be preferable in cases requiring anterior cervical corpectomies or involving multisegmental disease. In the presented case, the heightened edema indicated poor bone quality and potential anterior failure, warranting cantilever posterior fixation to mitigate anterior stress. **Conclusions:** Circumferential fixation in cervical osteodiscitis offers robust support, facilitating effective anterior decompression and yielding favorable neurological outcomes, albeit posing greater surgical complexity.

Keywords: osteodiscitis, epidural abscess, discectomy, anterior and posterior fixation

ANATOMICAL VARIATIONS THAT CAN INTERRACT WITH COCHLEAR IMPLANTATION IN A PACIENT WITH CONGENITAL BILATERAL HEARING LOSS

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Introduction: Congenital hearing loss can become a chronic condition if untreated. Children born with this illness struggle with language and speech acquisition, cognitive functions, and social interactions. Early detection and treatment, which include cochlear implantation, play a huge role in further development and quality of life. **Case Report:** We present a case of a 10-month-old female patient, who was brought to the Otorhinolaryngology Clinic from Targu Mures complaining of hearing impairment. Several tests were performed. Clinical examination reveals a narrow ear canal.Tympanometry dysplays an As tympanogram curve type. Otoacoustic emissions and Auditory Brainstem Response are bilaterally negative. Early auditory evoked potentials shows the fifth wave present bilaterally at 70-80 dB. Auditory Steady-State Response (ASSR) reveals the hearing threshold at 70-85 dB in the left ear and 75-85 dB in the right ear. Based on these findings the patient was diagnosed with Congenital Bilateral Mixed Severe Hearing Loss, so a Cochlear Implantation was recommended. A preoperative CT scan discovered an anatomical variation of the Sigmoid Sinus. During the surgery, turned out that the Sigmoid Sinus protruded and partially covered the surgical field, so the access to the Round Window was complicated. This situation forced the surgeon to adopt a new surgical technique to perform the cochlear implant. **Discussions :** The surgical procedure involves working close to important structures including the Sigmoid sinus, Chorda tympani nerve, Facial Nerve, and Semicircular canals. Anatomical abnormalities of any of these components may harden the surgical technique. In the given case, the Sigmoid Sinus protrusion partially occluded the access to the Round Window. The CT

images couldn't predict the real struggle that was later discovered on the operating table. **Conclusions:** Some anatomical variations can harden the surgical procedure of Cochlear implantation. Sometimes preoperative imaging can't reveal the real anatomical features and the surgery becomes a real challenge as the surgeon has to rethink the technique during the operation.

Keywords: Anatomical variations, Sigmoid sinus, Cochlear implant, CT scan

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EXTENSIVE CUTANEOUS TUMOR LOCATED ON THE DORSAL REGION

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Introduction: Skin tumours represent a wide range of neoplasms that arise from the skin. These tumors can manifest in various form, ranging from benign to malignant, and may originate from different cell types within the skin layers. Benign tumours, such as melanocytic nevus and cutaneous fibroma, do not metastasise and often are treated for symptoms or aesthetics purpose. Malignant tumours such as basal cell carcinoma, spinocellular carcinoma and melanoma can manifest with a variety of signs and symptoms, including non-healing skin lesions, changes in the size or colour of pre-existing moles, and persistent itching. Early diagnosis and timely treatment of this tumor are crucial to improve survival prospects and reduce the risk of metastasis **Case Report:** I report the case of a young 16-year-old patient who had a large skin tumour on his dorsal region **Discussions :** Surgical removal of the tumour was performed under general anaesthesia with oro-tracheal intubation. First the skin was washed with antiseptic solution, then a circumscribed incision of the tumour was performed with excision and transfer for histopathological examination. Copious washings were then performed followed by haemostasis. The integumentary defect was reduced with suture threads and the large skin defect was covered with proximal advancement of the skin flap; after insertion of the drain, the flap was fixed with separate suture threads. The wound was then fixed externally with steri-strips and the operation was completed with dressing. Local advancement flap surgery is a widely utilized technique in plastic surgery for the repair of defects resulting from skin excision, trauma, or tumor removal. This surgical approach involves the movement of adjacent healthy tissue into the defect area to restore both form and function while minimizing scar formation. The key advantage of this procedure lies in its ability to provide excellent color and texture match with surrounding skin, leading to aesthetically pleasing outcomes **Conclusions:** The surgery was successfully performed, and the patient recovered without significant postoperative complications. After an appropriate follow-up period, the patient showed significant improvement in symptoms and aesthetic satisfaction. The patient showed wound healing with no obvious signs of tumour recurrence. Functionality of the dorsal region was preserved, and the patient reported a high degree of aesthetic satisfaction with the final result of the reconstruction

Keywords: cutaneoustumor, localadvancementflapsurgery, advanyages

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A COMPLEX CASE OF A JUPITER TYPE IID MONTEGGIA FRACTURE-DISLOCATION

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Introduction: A combined lesion, in which the ulna is fractured, and the radial head is dislocated means a complicated injurie of the elbow and was described by Giovanni Monteggia (1762-1815). These injuries are usually caused by high-energy trauma to the outstretched, slightly flexed arm. **Case Report:** In our case, a 39-year-old man who fell from an ATV off-road presented on 14/01/2024 with a swollen elbow joint. The X-Ray showed a Monteggia lesion, in which he suffered a proximal segmental ulnar shaft fracture, a dislocation of the radial head and an additional multi-fragment fracture of the olecranon. The fracture is classified by Bado and in this case determined as a subclassification by Jupiter IID, which means it is an extended fracture from the olecranon to the diaphysis. After the preoperative measures, the operation took place on 17/02/2024. The surgical approach was chosen via the posterior side of the fractured ulna up to the olecranon. For the open reduction internal fixation (ORIF) of the ulna a proximal ulna prebent locking plate (LCP) was used. Due to the high comminution presented by shaft of the ulna, the fracture was reconstructed on the plate with the aid of temporary K-wires. The construct was further stabilized with cerclage sutures. Fluoroscopy check-up showed the relocation of the radial head, thus proximal extension into a Speed and Boyd's approach was not necessary. Posto-operatively the arm was immobilized in supination with a plaster cast for 2-3 weeks. The healing process is going well so far, but further

measures, like further further X-rays and physiotherapy are needed to maximise the outcome. **Discussions :** It is challenging to choose the right surgical method in such complicated cases. It should include treatment of the fracture, the correct position of the radial head, the olecranon should be stable and the attaching muscles should remain as functional as possible to ensure adequate movement. The other surgical option would have been a combination between a 3.5 dynamic compression plate (DCP) for the ulnar shaft fracture and the "figure of eight - technique" for the olecranon fracture. Either a LCP or a DCP plate can be used, but in our case the LCP plate was more adequate to prevent the olecranon from slipping off. **Conclusions:** Monteggia fractures are complicated lesions that need precise surgical treatment due to favorable restrictions in movement and future arthrosis and pseudoarthrosis, as well as chronic pain.

Keywords: Monteggia-Fracture dislocation, Jupiter IID, LCP

MANAGING A COMPLEX OPEN CARPAL DISLOCATION INJURY RESULTING FROM A MOTORBIKE ACCIDENT: A CASE REPORT

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Introduction: Riding a motorbike poses a major risk of injury, especially to the extremities. It is not uncommon for the large forces to cause open injuries. In these cases, it must be quickly decided which injuries need to be treated first. Open injuries are treated as emergencies first, as they pose a risk of infection and possible damage to the nervous or vascular system. **Case Report:** We present a 34-year-old man admitted to the hospital after a motorbike accident. An open fracture or dislocation (Gustillo-Anderson, type 3) of the left wrist is observed directly in the emergency room. Radiological findings reveal an open flexion fracture (Smith, type 3) of the radius, completely adjacent to the carpus. The Os scaphoideum is fractured, and the carpometacarpal joint is dislocated. The X-ray also shows a scapula fracture on the left and a radial head fracture on the right. Surgical treatment of the open carpus occurs directly on the same evening (<2 hours after admission). Firstly, the exposed fragments are cleaned up, and a radius fracture (type 2, chauffeur fracture) is identified. The Os scaphoideum cannot be found. The median nerve, FCR, and FPL tendon are visualized and neurolysed or tenolysed. While reducing the radius under strong traction, the distal pole of the scaphoid is found, but the proximal fragment is only discovered and reduced after searching in the soft tissue. A 1.0 mm K-wire is inserted into the Os scaphoideum, followed by a 20 mm Herbert screw. The processus styloideus radii is fixed by 2 K-wires. Also, the Os lunatum can be reduced under pressure and is then stable, which is why no further wire is used. A plaster cast is applied, and the wires are removed 6 weeks after the surgical treatment. Intravenous treatment with antibiotics is administered. The scapula and right radial head fractures are treated conservatively. **Discussions :** The difficulty in our case is restoring the anatomical position while ensuring stability. In addition to wound contamination, we also must deal with missing fracture parts. It is important to recognize and treat damage to the soft tissue, tendons, ligaments, nerves, and blood vessels. **Conclusions:** Open injuries pose a high risk of infection, necessitating rapid action to minimize possible nerve and vascular damage.

Keywords: open carpal dislocation, scaphoid fracture, Herbert screw, radius fracture

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CASE REPORT: SURGICAL MANAGEMENT OF TRAUMATIC PULMONARY HERNIA

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Introduction: The traumatic pulmonary hernia is a rare and uncommon encounter in trauma care. Most traumatic lung hernias have been reported secondary to falls, motor vehicle accidents, and penetrating chest trauma. Early surgical repair offers the best results with a low morbidity, and the long-term prognosis is excellent. **Case Report:** Our paper aims to discuss the surgical management of a 52-year-old male patient who presented at the emergency room with acute respiratory insufficiency. Upon examination, he was diagnosed with a right thoracic penetrating wound associated with a suffocating pneumothorax, subcutaneous emphysema, and two rib fractures adjacent to the penetrating wound. The injuries were sustained during a biking accident, where the handlebar penetrated the right hemithorax.The contrast-enhanced thoracic CT scan revealed on the right hemithorax fine

fracture line of the 5th rib (inferior edge), an open fracture of the 6th rib (the lateral arch), a 1 cm herniation area of the pulmonary parenchyma in the 5-6th intercostal space, a small pneumothorax (6 mm) and subcutaneous emphysema. The surgical treatment involved two hemostatic subcutaneous sutures with reintroduction of the lung in the pleural cavity and placement of a right passive pleural drain. **Discussions :** The patient's postoperative early status faced no complications; control thoracic x-rays were performed with fluid secretions monitorization. On day three, the drainage was clamped with a 24-hour monitoring of saturations and a thoracic X-ray at the end. The pleural drainage was removed on day four, together with the discharge. Postoperative controls revealed no modifications to the patient's respiratory function. **Conclusions:** This case underscores the importance of considering uncommon etiologies in patients presenting with thoracic symptoms and the critical role of prompt surgical correction to prevent potential complications such as respiratory compromise or organ dysfunction. The best imaging technique for such cases is trauma control computed tomography, which better defines the hernia dimensions and associated thoracic and pleural damage.

Keywords: lung herniation, chest trauma, computed tomography

12-YEAR-OLD CHILD WITH SEQUENTIAL OPERATIONS IN PATELLAR TENDON RECONSTRUCTION: A CASE STUDY

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Introduction: Ruptures of the patellar tendon are rare, resulting from direct or indirect injuries. Patellar fractures with concurrent tendinous damage present unique challenges in pediatric orthopedics, affecting growth and knee functionality. This case report examines a complex injury in a 12-year-old boy, emphasizing diagnostic difficulties, management pitfalls, and a correct surgical solution. **Case Report:** In July 2023, a 12-year-old boy suffered a lower pole fracture of the right patella, initially treated with immobilization. The lack of progress by September and a misdiagnosis of ossifying myositis in the right quadriceps tendon demanded further investigation. Radiographic and ultrasonographic assessments revealed an older fracture at the inferolateral pole of the patella with an intraarticular bone fragment suggesting a possible rupture of the right patellar ligament. A December 2023 surgical attempt to remove the bony formation and reconstruction failed to repair the patellar tendon rupture, severely impairing the knee's functionality, including the inability to perform active leg extension. Faced with a persistent rupture and a patella ascended by 5 cm, a decisive and innovative surgical strategy was required. On March 5, 2024, a meticulous procedure utilizing autografts from the semitendinosus and gracilis tendons was performed to reconstruct the patellar tendon, aiming to restore knee integrity and functionality. This involved releasing quadriceps muscle, detailed graft preparation, creation of tunnels within the patella, and integration of the tendon pull-through technique into the existing tendon structure, secured with Ti-Cron sutures. The postoperative phase showed a favorable outcome, with the early removal of the Redon drain and continued immobilization for three weeks with regular X-ray monitoring to confirm the correct positioning and to promote healing. **Discussions :** This case underscores the challenges in diagnosing complex knee injuries in pediatric patients, where misdiagnosis can lead to prolonged discomfort and the potential for long-term functional impairment. The innovative surgical use of semitendinosus and gracilis tendon autografts for patellar tendon reconstruction effectively addresses structural damage and functional deficits caused by the injury. **Conclusions:** Timely and accurate diagnosis is crucial in managing complex patellar injuries in children to prevent the aftereffects of incorrect treatment approaches. The described surgical intervention showcases the feasibility and effectiveness of autograft augmentation using semitendinosus and gracilis tendons for reconstructing the patellar tendon, offering a promising solution for similar cases. This approach not only addresses the immediate structural issues but also aims to restore long-term knee function, highlighting the importance of tailored surgical strategies in pediatric orthopedic injuries.

Keywords: Pediatric Orthopedics, Patellar Tendon Reconstruction, Autograft Augmentation, Diagnostic Challenges

AT THE EDGE OF THE CRANIUM: CASE REPORT OF AN UNRUPTURED C1-C2 INTERNAL CAROTID ANEURISM AND LITERATURE REVIEW

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Introduction: Aneurysms of the C1-C2 segments are considered extracranial, based on Bouthillier's classification. ICA aneurysms mostly occur intracranialy, thus the lession of our patient is rare. Aneurysms can be treated by microsurgical clipping or endovascular techinques. In the case of our patient, that is awaiting a medical decision, the endovascular is the most likely to be chosen. **Case Report:** The patient, a 34 y.o. male, presented to our clinic for vertigo, nausea and tinnitus in the right ear. The tinnitus began 7 years prior to admission. On examination, the patient was aware (GCS=15) and presented no motor deficits. An angio-MRI was performed and showed a saccular aneurysm of the C1-C2 segments of the ICA and a filiform V4 segment of the vertebral artery, most probably constitutinal. The patient was kept under supervision until the proper treatment was chosen, the endovascular approach being the most probable, given the nature and location of the lession. **Discussions :** Unruptured aneurysm can be treated via clipping, if they have an aneurysmal sack smaller than 25 mm and have a small enaough neck. The aneurysm of our patient would be eligible for clipping, having a diameter of 7 mm, but the localization in the C1-C2 segments poses a high risk of arterial dissection, that could lead to thrombembolism and stroke. In the case of extracranial ICA aneurysms, the literature stipulates that up to 87% of patients treated via endovascular approach completely recover neurologicaly. Based on this, endovascular techiques are being considered as treatment. Simple coilling as opposed to coiling and stenting has a higher risk of occlusion, leading to a high risk of ischemic stroke. Another option being considered is the use of a flow-diverter device. The literature shows a 84.4% rate of complete aneurysmal occlusion with under 5% complications, such as ischemic stoke. The flow-diverter is usually used for complex cases, such as our patient, that has a high risk of ischemic stoke due to the constitutionaly filiform vertebral artey. A disadvantage of performing endovascular techiques is the use of antiplatelet medication, that increases the risk of intraoperative or postoperative hemorrage. **Conclusions:** In conclusion, a multidisciplinary team is needed in order to choose the proper treatment for some types of aneurysms, such as our case. Extracranial ICA aneurysms have a better prognostic if they are treated endovasculary. Further studies are needed in order to properly understand the potential downsides of the endovascular treatment of extracranial ICA aneurysms.

Keywords: aneurysm, internal carotid artery, endovascular, flow diverter

MINIMALLY INVASIVE MANAGEMENT OF INSULIN NEEDLE FRAGMENTATION IN AN OBESE DIABETIC PATIENT: A CASE REPORT

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Introduction: Needle breakage during insulin administration is an unusual but grave complication, particularly in obese patients with chronic diabetes. This case report delineates the clinical approach and management strategy employed for retrieving a fragmented insulin needle in an elderly obese patient with long-standing diabetes. **Case Report:** A 75-year-old female with Grade 2 obesity and a decade-long history of type 2 diabetes presented with a periumbilical lesion after an insulin needle broke during self-administration. The initial assessment involved an abdominal X-ray to localize the needle fragment, followed by its minimally invasive removal through a precise incision (2 cm) guided by the imaging findings. A post-control x-ray was performed, and five days of profilatic antibiotherapy was administered. **Discussions :** The incident highlights the technical challenges and increased risk of needle breakage in obese diabetic patients due to the greater fat layer. This case emphasizes the necessity of employing imaging modalities for accurate localization and delineation of the foreign body, facilitating a targeted and minimally invasive surgical approach. It also discusses the significance of postoperative care, including antibiotic and anti-inflammatory therapy, to prevent infection and promote healing. **Conclusions:** Minimally invasive techniques, augmented by precise imaging, offer a safe and productive solution for the removal of broken insulin needles in obese patients. This report underlines the importance of comprehensive management protocols and preventive measures in the diabetic population to mitigate such risks.

Keywords: Insulin Needle Fragmentation, Minimally Invasive Surgery, Obese Diabetic Management, Imaging-Guided Removal

LARGE WELL-DIFFERENTIATED LIPOMATOUS RETROPERITONEAL TUMOUR IN A PATIENT REFERRED FOR UMBILICAL HERNIA REPAIR.

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Introduction: An umbilical hernia is a frequently occurring condition that can be detected through a physical examination. While the treatment for this condition in adults is generally straightforward and can be addressed through minimally invasive surgery or laparotomy, some patients may have additional abdominal or retroperitoneal issues that need surgical attention. **Case Report:** We present a 55-year-old male patient who was referred for the repair of a symptomatic umbilical hernia (previous acute painful episode requiring emergency presentation). Clinical examination showed a painful but non-complicated umbilical hernia and important diastasis recti. The ultrasound examination raised the suspicion of a retroperitoneal tumour. The CT scan confirmed the presence of a large well delineated retroperitoneal tumor located in closed contact with the right kidney, with imagistic features suggestive for an angiomyolipoma. After a multidisciplinary discussion, we decided on a concomitant approach to both lesions. Surgery consisted of complete excision of the retroperitoneal tumour with preservation of the kidney and an open Rives-Stoppa retromuscular repair using a polypropylene mesh. Pathology showed a well-differentiated lipomatous lesion/angiomyolipoma as was suspected previously in the CT scan. **Discussions :** The case is interesting due to the association of a large asymptomatic retroperitoneal benign tumour (angiomyolipoma) with a primary anterior abdominal wall defect (umbilical hernia and diastasis recti). The complete resection of the retroperitoneal tumour avoids the development of further complications and is associated with an excellent prognosis if the pathology is a benign one. **Conclusions:** A thorough evaluation of individuals with abdominal wall defects is crucial in detecting any associated lesions, while also facilitating optimal one-stage treatment planning. By carefully examining the patient's clinical and imagistic preoperative data, healthcare professionals can ensure that the patient's treatment is well-planned and effectively delivered.

Keywords: Retroperitoneal tumour, Angiomyolipoma, Umbilical hernia, Diastasis recti

BILATERAL LARGE OVARIAN BORDERLINE CYSTADENOMAS IN A PATIENT REFERRED FOR SUPRAUMBILICAL HERNIA REPAIR

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Introduction: A hernia represents the protusion of an organ or part of it through a congenital or acquired route of the abdominal wall, outward the abdominal cavity. The supraumbilical or epigastric hernia appears on the midline through the fibers of the linea alba. Patients with abdominal wall hernia may present various associated lesions requiring a specific treatment. A correct preoperative evaluation avoids unpleasant intraoperative suprises and allows an optimal treatment. Ovarian serous/mucinous cystadenomas are bening tumors, usually occuring at the age between 20 and 45 years old women. Borderline tumors are characterized by atypical cells proliferation without crossing the basement membrane,often referred to as "low malignant potential" tumors, not invasive but also not completely benign. The main possible complications of these tumors are: non-invasive or invasive peritoneal implants (pseudomyxoma peritonei), invasive implants causing metastazing tumor, torsion, compression of the surrounding organs, infection and malignant transformation. **Case Report:** A 55 years old female patient was referred for the repair of a painful supraumbilical hernia. Clinical and ultrasound examination raised the suspicion of an associated intraabdominal tumor. CT scan showed a large lobulated cystic mass with uncertain origin (20 cm diameter). During laparotomy, two large bilateral ovarian cysts were found, which were treated by bilateral adnexectomy. The postoperative course was uneventfull, with discharge after 6 days and no complaints or signs of recurrence at 6 months follow-up. Pathology showed the presence of 2 large serous borderline cystadenomas, with no venous, lymphatic or perineural invasion - staged as pT1b/FIGO IB. **Discussions :** The case is interesting due to the atypical clinical presentation and the simultaneous presence of large borderline tumors in both ovaries. **Conclusions:** Careful clinical and imagistic evaluation of patients with abdominal wall

hernia referred for surgery is crucial to avoid incomplete diagnosis, and to allow a careful planning with solving all the lesions.

Keywords: Supraumbilical hernia, Bilateral ovarian mass, Borderline cystadenoma

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A HAPPY FINDING FOR A GASTRIC CANCER

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Introduction: Gastric cancer is one of the most aggressive forms of cancer and develops either from mucosal tissue (adenocarcinoma) or stromal tissue (gist). Usually, a diagnosis of a malignant gastric tumour has a poor prognosis.In this presentation we would like to show, that even with a malignant diagnosis already set, the patient can also have a good prognosis after all. **Case Report:** This case presents a 56 y.o. female patient who was admitted to the Emergency Mures County Hospital with nausea, epigastric pain, weight loss and mild anaemia. The CT scan revealed a tumour, with a possible foreign body in the middle, situated on the lesser curvature of the stomach and compressing the antrum. It was interpreted as a compressive gastric cancer. After the surgery the histopathological exam revealed that the possible tumour was actually a granuloma against the foreign body. The patient had ingested a small piece of wood 4-5 years ago and granulous tissue had formed around it. **Discussions :** The histopathological exam often plays a crucial role in making a definitive diagnosis. Sometimes when a patient is first examined, the results of imaging tempt the doctors to make an unspecific diagnosis, because they do not have all the information.In this case the histopathological results caused a positive turn in results, as the primary diagnosis had a poor prognosis. **Conclusions:** The case was a happy finding of a granuloma instead of a gist tumour. The patient was discharged in a good overall condition and without any complications. It was decided that he should come for a checkup in three months.

Keywords: gastric cancer, tumor, surgery, foreign body

INTERHEPATOPHRENIC ABSCESS

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Introduction: Interhepatophrenic abscesses usually represent a common complication of a digestive illness, like liver/gallbladder cysts or tumours, or of a thoracic empyema. Using CT imaging it is possible to follow up on symptoms and diagnose the abscess. In this presentation we would like to show that abscesses can also form without being a complication of a known disease or having specific symptoms that can alarm the patient. **Case Report:** This case report introduces a 42 y.o. patient who presented himself to the Emergency Department, Emergency Mures County Hospital, with fever and pain in the right hypochondrium, but without any previous medical history. Using a contrast CT, a big abscess under the right diaphragmatic dome was diagnosed, pushing the liver to the contralateral side. He received an emergency surgery with a small incision under the right costal margin, which revealed a collection of about 2L of pus. After careful exploration it showed that no other organs were affected. **Discussions :** Even though abdominal abscesses are common complications of other illnesses, they may also be the cause to a different set of complications. If remaining undrained, they may lead to generalized peritonitis abdominally or chest complications like pleural effusion or empyema. **Conclusions:** This patient had a localized abscess without involvement of other organs, so it was possible to drain and wash the affected area without serious complications. Spontaneous subphrenic abscesses are very rare. In this case it might have been the consequence of a perforated ulcer in the past.

Keywords: interhepatophrenic abscess, pus, surgery, complication

RAPIDLY PROGRESSIVE COXARTHORIS: A CASE REPORT

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Introduction: Rapidly progressive coxarthrosis (RPOH) is an arthropathy with insufficiently understood etiology, which affects both articulation of the femoral head with the acetabulum determining a narrowing of the joint space of >2mm over the course of 12 months, which is a faster progression of this disease compared to the primary hip osteoarthritis. Although RPOH affects predominantly elderly women during menopause, the disease can be also triggered by trauma, infections, intra-articular corticosteroids injections and high levels of bone biomarkers in serum. **Case Report:** A 56-year-old woman presents in the orthopedical department with manifested hip pain and mobility disfunction interesting the left hip joint. After analyzing her symptoms, the fast progression of her state, raised the possibility that her diagnosis might be rapid progressive coxarthrosis. The radiological features of the left hip joint showed the destruction of both the femoral head and acetabulum with a complete narrowing of the joint space that causes the appearance of numerous osteophytes. Taking into consideration the results, both clinical and paraclinical investigations, we confirm our presumptive diagnosis, classifying it as being: RPOH GRADE III. Judging by the patient's age, lifestyle, and advanced diagnosis, we considered total hip arthroplasty the best course of treatment. **Discussions :** Due to the illness's rarity and the symptoms of coxarthrosis rapid progression sharing parallels with other age-related disorders, it is very easy to think of it as being osteoporosis or a femur head fracture- situations in which the differential diagnosis is critical to prognosis. **Conclusions:** Although the disease is rare and a prompt diagnosis is in most cases impossible, we should raise awareness among physicians not to exclude the possibility of this pathology in case they might encounter it during their practice. Also, they should pay special attention to high-risk groups such as: women post menopause, personal history of multiple trauma or similar symptomatology documented in their family's history.

Keywords: Rapid progressiv coxarthrosis, Hip joint, Osteonecrosis, Total hip arthroplasty

CASE REPORT: TOTAL HIP ARTHROPLASTY REVISION FOR METALLOSIS CORRECTION AND JOINT RESTORATION

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Introduction: The surgical technique for total bilateral hip arthroplasty revision is a complex medical procedure aimed at replacing hip joints when initial prostheses encounter damage or other issues, with the overarching goal of restoring hip joint functionality. Metallosis, a condition characterized by the excessive accumulation of metal within tissue or an organism, often arises due to prolonged exposure to metallic components, such as those found in medical implants or prostheses. This condition can lead to a cascade of adverse effects including inflammation, pain, and tissue damage. **Case Report:** In a recent case study, a 68-year-old patient underwent bilateral hip arthroplasty in 2009 to address primary coxarthrosis, utilizing distinct types of prostheses tailored to each hip. A cementless Biotechni prosthesis with a swing cup made of titanium with hydroxyapatite was employed for primary coxarthrosis on the left side, while a cementless Taperlock prosthesis with a trilogy cup and polyethylene insert was used for coxarthrosis on the right side. However, over the course of two years following the surgery, the patient began experiencing persistent pain in the left hip and progressive shortening of the right leg. Consequently, the patient was admitted for further evaluation and intervention. Upon thorough preoperative preparation, surgical intervention was undertaken, revealing significant metallosis upon removal of the right acetabular component. This prompted immediate action, including scraping of the acetabular surface, meticulous removal of modified tissue, and thorough lavage to address the complications arising from metallosis. However, due to the lack of bone stock at the acetabular level, a Kerbul revision ring was surgically implanted and securely fixed with four screws to ensure stability and long-term functionality. During the surgical procedure, biological samples were collected for subsequent bacteriological and anatomopathological examinations, revealing the presence of a fibro-par inflammatory process characterized by numerous macrophages and multinucleated giant cells containing amorphous blackish material. **Discussions :** Following the surgery, the patient exhibited a favorable postoperative course, remaining afebrile and maintaining stable hemodynamic and respiratory parameters. Active

mobilization was achieved with the assistance of an auxiliary frame. Upon discharge, the patient's general condition was noted to be good, with surgical wounds healing by primary intention and without signs of local complications or pathological secretions. **Conclusions:** In conclusion, total hip arthroplasty revision emerged as a highly effective method for addressing metallosis and restoring joint functionality in the aforementioned case,by replacing problematic medical devices and implementing appropriate surgical techniques.

Keywords: Hip arthroplasty revision, Metallosis, Surgical techique, Protheses

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SURGICAL MANAGEMENT OF MULTIPLE FOREIGN BODIES INGESTION IN A DETAINED PATIENT

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Introduction: Duodenal foreign bodies are a common clinical encounter in the emergency room. Accidents or mental issues mostly cause them. Usually, they pass impulsively through the gastrointestinal tract or are removed endoscopically. In a few cases, emergency surgical management is required. **Case Report:** We present the surgical management of a 56-year-old incarcerated male who ingested multiple metal objects, leading to complications (upper digestive tract hemorrhage). Upon arrival at the emergency department, the patient underwent a comprehensive clinical evaluation. Computed tomography (CT) imaging revealed the presence of a spoon tail within the duodenum and the two razor blades lodged at the level of the ileum. An attempt was made to retrieve the foreign objects via gastrointestinal endoscopy; however, this intervention proved unsuccessful. Consequently, surgical intervention was required. A laparotomy was performed with duodenostomy and 30 cm ileal resection with the successful removal of the ingested objects (an intraoperative radiological check was required). **Discussions :** The patient's postoperative management reported no complications with the patient's discharge on day five. Endoscopic control revealed some gastric lesions with no diffuse bleeding complications present. **Conclusions:** This case highlights the importance of a multidisciplinary approach, incorporating both advanced diagnostic imaging and surgical intervention, to effectively address and mitigate severe hemorrhagic complications arising from the ingestion of hazardous objects. It emphasizes the need for vigilance, prompt diagnosis, and tailored surgical strategies to manage ingested foreign bodies in high-risk populations.

Keywords: FOREIGN BODY, DUODENUM, ILEUM, LAPARATOMY

FALLOPIAN TUBE CANCER UNMASKED BY NEUROLOGICAL SYMPTOMS: A CASE REPORT

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Introduction: PCD (paraneoplastic cerebellar degeneration) is a neurological disorder caused by immune-mediated injury to cerebellar Purkinje cells. The symptoms of PCD can precede the diagnosis of underlying gynecological malignancies. The following case highlights the atypical and rare onset of gynecological cancer with paraneoplastic syndrome and emphasizes the need for comprehensive assessment and early detection. **Case Report:** We report the case of a 49-year-old woman with progressive symptoms of dysarthria, gait instability, and dysmetria after a diarrheal illness. On examination, there was evidence of horizontal nystagmus and an absence of superficial abdominal reflexes. Blood tests showed the presence of antinuclear antibodies = 159UI/ml and positive anti-Yo antibodies. MRI of the head showed left parietal convexity meningioma. Vascular demyelination lesions suggested mild to moderate cerebellar atrophy. The patient underwent a CT of the thorax, abdomen and pelvis that revealed a highly suspicious tubo-ovarian lesion consisting of a 66/35-mm left adnexal mass. After reviewing the investigations, it has been decided that a gynecological examination was necessary to further assess the adnexal mass. It raised the suspicion of an adnexal malignant tumor, which could explain the paraneoplastic syndrome. Surgery was performed via a Pfannenstiel incision, and an intraoperative frozen section diagnosis of fallopian tube carcinoma was made. At inspection, the surgeon found a tumor of the left fallopian tube, of 6/4 cm, highly suspicious of malignancy. A left adnexectomy was performed and the pathology result came back positive for malignancy. The operation was completed with total hysterectomy with right adnexectomy, multiple peritoneal biopsies and an omentectomy. The final histopathology report provided the diagnosis of high-grade serous

carcinoma of the left fallopian tube. The postoperative evolution was favorable and the patient started adjuvant treatment. She is currently undergoing chemotherapy, with a slight remission of the neurologic symptoms. **Discussions :** Typical neurological symptoms in cancer patients are common due to direct tumor invasion of the nervous system or neurotoxicity from chemotherapy. In under 1% of cases, an autoimmune response that targets the neuronal tissue is developed. Numerous antineuronal antibodies are associated with PCD, anti-Yo antibodies being one of them. In our case, PCD has evolved gradually over 7 months, leaving the patient with severe pancerebellar dysfunction. **Conclusions:** It is important for healthcare providers to be aware that persistent unexplained neurological symptoms can be associated with an underlying malignancy. By recognizing the symptoms of PCD, early cancer diagnosis can be made, leading to a faster treatment and an improved prognostic.

Keywords: paraneoplastic cerebellar degeneration, fallopian tube cancer, antineuronal antibodies

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CO-EXISTENCE OF MECKEL'S DIVERTICULUM AND OVARIAN CYST IN THE CASE OF INTESTINAL OCCLUSION: A CASE REPORT

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Introduction: Meckel's diverticulum is a congenital outpouching or bulge in the lower part of the ileum. Meckel's diverticulum occurs in only 2% of the population. Ovarian cysts are fluid-filled sacs that develop on one or both ovaries. Most ovarian cysts are benign (non-cancerous) and often go away on their own without causing any symptoms. However, in some cases, they can cause discomfort or lead to complications **Case Report:** A 33-year-old patient with a history of Appendectomy with peritonitis and re-intervention for intestinal occlusion (1997), right ovarian cyst, transferred from the Gynaecology Department to the General Surgery Department Cluj-Napoca accusing diffuse abdominal pain, lack of digestive transit for faecal matter and gas, vomiting started 48 hours ago. Plain abdominal X-ray shows multiple hydro-aerial levels and during the clinical examination sensitivity to superficial and deep palpation of the abdomen. In these conditions establishing the diagnosis of intestinal occlusion due to adhesion syndrome is surgically intervened as an emergency, thus exploratory laparotomy was performed, with aspiration of 200ml serocitrin fluid, adhesiolysis, biopsy of mesenteric adenopathy and excision of Meckel's diverticulum, puncture and evacuation of the right ovarian cyst and drainage of the pouch of Douglas. Postoperative evolution was favorable under antibiotic, antiaglic, antispasmodic, anticoagulant and gastric protector treatment with a clean wound in the process of healing, the resumption of digestive transit and nutrition and the suppression of the drain tube on the 5th postoperative day. The patient is discharged surgically cured **Discussions :** Certainly: The rarity of concurrent Meckel's diverticulum and ovarian cysts in a patient with intestinal occlusion underscores the need for surgical awareness during routine procedures. This case emphasizes the importance of thorough preoperative evaluation and intraoperative vigilance to identify unexpected complexities that may influence management. It highlights the necessity of interdisciplinary collaboration among healthcare professionals to navigate such intricacies effectively. By maintaining a broad differential diagnosis and fostering teamwork, clinicians can ensure timely and optimal care for patients with diverse clinical presentations, ultimately improving outcomes in both emergency and routine surgical settings. **Conclusions:** This case emphasizes the vital role of surgical awareness in emergency situations involving intestinal occlusion, especially when co-existing pathologies like Meckel's diverticulum and ovarian cysts are present. Prompt recognition of such complexities underscores the need for a comprehensive diagnostic approach and interdisciplinary collaboration among healthcare professionals to ensure timely and effective management, ultimately leading to improved patient outcomes.

Keywords: Intestinal occlusion, Meckel’s diverticulum, Ovarian cyst, Laparotomy

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WHY WE DEPEND ON TEAMWORK: HIGHLIGHTING THE IMPORTANCE OF INTERDISCIPLINARY COOPERATION WITH A COMPLEX PEDIATRIC CASE WITH DIGESTIVE AND CARDIAC MALFORMATION

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Introduction: Medicine relies on teamwork due to its vast scope, necessitating collaboration across disciplines.

While some fields naturally intersect, others require interdisciplinary cooperation for complex cases. However, challenges arise, such as establishing intervention priorities and managing medication interactions. We explore these dynamics through a complex pediatric case involving eight specialties. **Case Report:** The presented case involves a male neonate born from a pathological pregnancy, exhibiting postnatal cyanosis and hypoxia necessitating transfer to the neonatal ICU. Already intra-utero cardiac examination suspected congenital ductal dependent malformation, severe aortic contraction, hypoplasia of the distal aortic arch, malformation of the mitral and aortic valve, ostium secundum atrial septal defect with sinister-dexter shunt, ventricular septal defect of the muscular part, persistent arterial canal along with pulmonary hypertension. Prostaglandin administration and angio-CT imaging ensued. Collaboration with pediatric cardiologists facilitated daily cardiac function assessments. By the fourth day, jaundice and decreased bowel movements emerged, prompting contrast radiography suspected duodenal stenosis. Surgical intervention on the sixth day revealed dilated D1 segment, duodenal stenosis due to annular pancreas, intestinal malrotation and malfixation, necessitating duodenojejunostomy. Postoperative care encompassed analgesia, antiemetics, diuretics, antibiotics (Ampiplus, Amikacin), electrolyte balance restoration and albumin administration, alongside continued prostaglandin therapy and phototherapy for jaundice. On the seventh day after surgery, worsening cardiac function led to an increase in prostaglandin and furosemide therapy. Cardiothoracic surgical intervention was delayed until significant improvement occurred.Despite an enhancement in his general state over the next days, the patient developed fever and CRP value was 61.9 ug/ml. Laboratory investigations included a positive hemoculture for gram-negative bacilli necessitating Colistin and immunoglobulin therapy. Further problems arose with refused food intake, vomiting and meteoristic abdomen. Imaging revealed gastric and intestinal distention and contrast-RX suggested intestinal stenosis at the anastomosis' side likely attributed to prostaglandin. In the meantime, Burkholderia Cepacia infection was confirmed, prompting transition to Meropenem from Vancomycin and Colistin as prescribed by infectious diseases specialists.Improvement ensued with plans to first perform cardiac-correction surgery and secondly reassess the duodenojejunal anastomosis. **Discussions :** The management of the presented case was challenged by complications, further complicating the severity of the malformation. It became evident that establishing the appropriate sequence of interventions is crucial. All this requires well-coordinated teamwork, meticulous consideration of potential drug interactions and procedural cross-reactions, and judicious decision-making regarding surgical interventions. **Conclusions:** Thus, this case underscores the importance of strategic planning and interdisciplinary collaboration in navigating challenging clinical scenarios.

Keywords: pediatric surgery, interdisciplinary cooperation, organ malformation, sepsis

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INTRAOPERATIVE NEUROMONITORING IN CEREBELLOPONTINE ANGLE TUMORS – PRESENT STATE AND FUTURE FRONTIERS

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Introduction: Intraoperative neuromonitoring (IONM) has become an essential component in ensuring optimal results of the cerebellopontine angle tumor resection. It implies continuous evaluation of the electrical activity of various neural pathways in an anesthetized patient. This innovation has allowed neurosurgeons to have a better understanding of the distorted CPA anatomy, preventing permanent damage to the cranial nerves and subsequent impairments of the patient. **Case Report:** The subject of this paper is a 67 years old female patient with a right vestibular schwannoma, complaining about hypoestesia in the right trigeminal teritory, progressive hearing loss, persistent headaches and vestibular syndrome. The retrosigmoidian path was chosen for tumor resection, thus the fundamental need of IONM usage. Moreover, the necessity of neuromonitoring was justified due to the normal function of the facial nerve (House-Brackman grade 1/6), which had to be preserved. The inaugural step was the placement of electrodes designed to register free-running recordings and a series of evoked potentials (EP) including the somatosensory ones (SSEPs) for the median, ulnar and tibialis posterior nerves and transcranial motor evoked potentials (MEPs) of arms, legs, and muscles with corticobulbar innervation of head and face. Electrodes were placed in a routine fashion and following the device calibration and anesthesia, the surgery commenced. After the CPA angle was reached and the tumor was identified, the IONM was used to identify the cranial nerves in the region: trigeminal and facial nerve. Constant monitoring of the neural activity of these nerves was performed, facilitated by permanent communication between the neurosurgical team and the neurophysiologists in charge of the signal interpretation. The surgery unfolded impeccably, without any peri- and early postoperative complications or sequelae. **Discussions :** Despite the immense beneficial impact of IONM on the outcome of CPA angle surgeries, outcome data of its use is rather unclear. Moreover, due to the interference

of anesthesia with the physiological function of the monitored neural pathways, alarm thresholds are disputed. Enhancement of the technique and future research are needed to eliminate ambiguities. **Conclusions:** IONM is undisputedly an excellent adjuvant in numerous neurosurgical approaches, including CPA angle tumors. It functions as an 'alarm' that enables neurosurgeons to prevent or decrease the risk of irreversible neurological damage. A key component for success is, without a doubt, a professional team comprising neurophysiologists, specifically trained to analyse and interpret the signals displayed on the neuromonitor.

Keywords: neuromonitoring, vestibular schwannoma, facial nerve

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SURGICAL RESOLUTION OF THE SPLENIC ARTERY ANEURYSM AND BIAXIAL ANALYSIS OF THE BIOMECHANICAL PROFILE OF THE ARTERIAL WALL

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Introduction: Splenic artery aneurysm (SAA) is a condition where the diameter increases over 1 cm. It is a rare condition with a prevalence of less than 1%. There is a risk of up to 25% rupture, but surprisingly, 80% of cases are asymptomatic. Endovascular treatment is usually the preferred first choice for treating SAA. However, the serpentine path of the splenic artery often requires surgical resolution in many cases of these aneurysms. **Case Report:** We are presenting a case study of a 46-year-old male patient who had several episodes of renal colic pain in his medical history. He was advised to undergo an angio-computed tomography (CTA) examination. During the examination, a splenic artery aneurysm measuring 32/28 mm was found with an extremely convoluted path of the splenic artery. Therefore, the surgical option was chosen as the solution. During the procedure, a small incision above the umbilic is made. Then, we enter the retroperitoneum by penetrating through the gastro-colic ligament. Next, we prepare the splenic and segmental aneurysmal arteries and clamp them proximally and distally to the aneurysm. The aneurysmal portion is then excluded, and we restore arterial continuity using an end-to-end anastomosis. The patient was discharged in good health on the third day after surgery. There were no other recorded events at the one and six-month follow-up appointments. Additionally, we performed a biaxial analysis of the biomechanical profiles of the arterial wall, both aneurysmal and non-aneurysmal. **Discussions :** Studying the biomechanical properties of normal and aneurysmal walls of visceral arteries can enhance our understanding of structural and biomechanical remodeling. This knowledge can aid in developing new therapeutic strategies to stabilize the extracellular matrix, limit aneurysmal development, and reduce the risk of rupture of visceral aneurysms in the future. **Conclusions:** In conclusion, analyzing the biomechanical characteristics of the intact visceral arterial wall and the aneurysmal wall can aid in developing new therapeutic strategies for preventing aneurysmal growth in the future. Additionally, eliminating the aneurysmal portion and performing primary arterial reconstruction is a viable option with minimal post-operative complications.

Keywords: Splenic artery aneurysm, Visceral artery aneurysm, biomechanical profile, vascular surgery

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CASE REPORT: MANAGEMENT OF INTESTINAL OCCLUSION WITH AMYAND'S HERNIA IN AN ELDERLY PATIENT

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Introduction: Amyand's hernia, characterized by the presence of the appendix within an inguinal hernia sac, is a rare condition that may lead to acute appendicitis and, in complex cases, intestinal occlusion. Its occurrence in older adults poses significant treatment challenges due to the potential for complications and comorbidities. **Case Report:** We aim to highlight the diagnostic challenges and surgical management strategies in treating an elderly patient with intestinal occlusion resulting from Amyand's hernia. We present the case of an 84-year-old male admitted to the emergency department with symptoms of intestinal occlusion. Detailed clinical examination, laboratory tests, and imaging studies (Abdominal CT) revealed an incarcerated right inguinal-scrotal hernia requiring emergency surgical treatment. Intraoperative exploration revealed a 10x10 cm hernia sac with caecum and an inflamed appendix (Amyand Hernia) with a local pericaecal abscess. Treatment involved appendectomy, cecorrhaphy, and evacuation of local abscesses with the placement of local drainage. **Discussions :** The patient's postoperative recovery was uneventful, and no general or local complications were reported. The successful

resolution of intestinal occlusion and management of Amyand's hernia was achieved, leading to the patient's discharge after seven days of hospitalization. **Conclusions:** This case underscores the importance of considering Amyand's hernia as a differential diagnosis in elderly patients with intestinal occlusion. Prompt surgical intervention tailored to the patient's condition can lead to successful outcomes, even in complex cases involving elderly patients.

Keywords: Amyand's hernia, intestinal occlusion, appendectomy, elderly patient

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SACROILIAC ABSCESS VERSUS ONGOING PREGNANCY: A CASE REPORT

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Introduction: Lower back pain is common, especially in pregnant women, with changes in her body being expected with an ongoing pregnancy, although the cause being a sacroiliac abscess is a rare and definitely strange encounter. **Case Report:** We present the case of a 24-year-old woman, with an ongoing pregnancy of 15 weeks reporting to the emergency room of the University Emergency Hospital Bucharest in September 2023 accusing pain in the left thigh and lower limb, immobilized with fever and shivers. She has been experiencing on-and-off pain for a month, being unmanageable to the point of immobilization. **Discussions :** She remained hospitalized for specialty evaluation. Based on the Magnetic Resonance investigation(MRI) report, there is a significant accumulation of fluid measuring 55mm in length and 20mm in thickness. The accumulation is located at the back of the piriformis muscle, exerting pressure on it and being in close proximity. Furthermore, it causes the anterior sciatic nerve to shift and affects the left sacroiliac joint in the area surrounding the roots of S1 and S2, including the sciatic hole.Nonspecific infiltrative collection affects the gluteal muscles, the infiltrative signal between the muscle bundles at the level of both thighs in the medial and anterior compartments of the root. Biochemistry laboratory findings include increased C-reactive protein (CRP), anemic state, and preoperative monocytosis. After neurosurgical, obstetrics, infectious diseases, and internal medicine investigations she was transferred to the orthopedics department with a diagnosis of sacroiliac abscess for surgical treatment. **Conclusions:** After a successful surgical intervention draining of the abscess, the histopathological exam showed a fibrin-hemorrhagic infiltrate of an unknown bacterial cause. The patient's levels of CRP dropped drastically and she was transferred back to obstetrics for post-operatory observation. Following the treatment with Clexane, Cefuroxime, Vancomycin, and non-steroidal anti-inflammatory medication the patient has fully recovered, bringing the pregnancy to term and delivering in March 2024.

Keywords: Abscess, Pregnancy, Sacroiliac Joint, C Reactive Protein

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MINIMALLY INVASIVE MITRAL SURGERY

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Introduction: Mitral valve insufficiency due to mitral valve prolapse is a cardiac condition where the mitral valves fail to close properly during heart contraction, allowing blood to flow back from the left ventricle into the left atrium. Recent years have seen a significant transformation in the management of mitral valve disease, driven by advancements in surgical techniques focused on reducing procedural invasiveness while optimizing clinical outcomes. **Case Report:** The 73-year-old patient, known with degenerative mitral insufficiency, grade 3 tricuspid insufficiency, grade 3 arterial hypertension, and unsystematized extrasystolic arrhythmia, is admitted to the cardiology department for the assessment of mitral valve disease severity by performing transesophageal echocardiography. Following the investigation, severe mitral insufficiency is detected, with prolapse of segments P1, P2, P3, prolapse of segments A1, A2, anterior commissure prolapse, and cleft A2-A2, indicating the need for mitral valve replacement **Discussions :** The surgical technique includes a standard presetting for the minimally invasive approach via right thoracotomy, video assisted with 4-5 cm incision in the 4th intercostal space. The peripheral cardiopulmonary bypass (BCP) was established through arterial and venous cannulation of the right femoral and jugular veins under transesophageal echocardiographic guidance. Mitral valvuloplasty is carried out by inserting four NEO-cordae and mitral annuloplasty with an EDWARDS PHYSIO size 30 ring. Intraoperative testing

and postoperative echocardiography showed no residual mitral regurgitation. **Conclusions:** Recent advancements in surgical techniques have revolutionized the management of mitral valve disease, focusing on less invasive procedures. The minimally invasive technique employed for the better visualization and repair of the mitral valve utilized a specific cannulation method designed to optimize venous drainage, thereby enhancing the efficiency of the procedure. Discharge occurred five days post-surgery, with the patient continuing to show an uncomplicated recovery and remaining asymptomatic during the three-month follow-up period.

Keywords: Mitral Valve Insufficiency, Cardiopulmonary bypass, Minimally Invasive

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SURVIVING ACUTE HEMORRHAGIC NECROTIZING PANCREATITIS: SURGICAL APPROACHES AND STRATEGIES FOR RECOVERY

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Introduction: Acute hemorrhagic necrotizing pancreatitis is an inflammatory disease that involves the destruction of pancreatic tissue caused by the overactivation of pancreatic enzymes. The main modifications in the pancreas include microvascular extravasation, steatonecrosis, acute inflammatory reactions, destruction of blood vessels, and necrosis of the parenchyma. **Case Report:** We present a case of a 43-year-old male without significant medical history, experiencing acute hemorrhagic necrotizing pancreatitis with multiple complications. The patient was diagnosed with acute pancreatitis for which specific drug therapy was initiated, with unfavorable evolution characterized by the onset of abdominal compartment syndrome, acute respiratory failure, pleurisy, and MODS. The first surgery was exploratory laparotomy, which revealed ascites fluid and access to the pancreatic lodge, exposing extensive necrosis of the head and pancreas body. Adhesiolysis, lavage, and multiple drainages were carried out. At 4 days postoperatively it was decided to surgical reintervention due to compartment syndrome and biological decline, where were practiced necrectomy and mounting the laparostomy kit with negative pressure VAC Ultra Abthera. At 72 hours, changing the negative pressure kit and anterograde cholecystectomy, colo epiploic detachment, and Kocher maneuver were practiced. Subsequently, there were 2 other surgeries every 72 hours, to replace the negative suction kit and perform repeated necrectomies, and adhesiolysis of the small intestines. At the last intervention, the risk of bleeding was assessed due to the negative pressure kit, and it was decided to close the abdominal wall with multiple drainages. At 7 days postoperatively, the patient presented fever spikes, leukocytosis, and an ascending inflammatory syndrome, leading to the decision for surgical reintervention for adhesiolysis, necrectomy, lavage, drainage, and left pleurostomy was performed for evacuation purposes. Subsequently, the patient's evolution was slowly favorable, remaining in the intensive care unit undergoing a progressive de-escalation of therapy. **Discussions :** The therapeutic attitude in acute pancreatitis should be prompt and correct, evaluated clinically, biologically, and through imaging exams, that contribute to establishing and applying therapeutic methods. Open drainage with negative pressure facilitates surgical explorations of the pancreatic lodge and abdominal cavity, preventing aggression on the abdominal wall through repeated incisions and sutures and control of intra-abdominal pressure.In severe forms of acute hemorrhagic necrotizing pancreatitis, mortality remains elevated even in specialized centers. **Conclusions:** Acute hemorrhagic necrotizing pancreatitis is a fatal disease, but with care and specialized interventions, it can restore a patient's chance for life.

Keywords: Acute hemorrhagic necrotizing pancreatitis, Laparostomy, Negative pressure therapy

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THE SURGICAL MANAGEMENT OF RECURRENT ADULT GRANULOSA CELL TUMOR OF THE OVARY-A CASE REPORT

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Introduction: Adult granulosa cell tumor of ovary is the most common type of ovarian granulosa cell tumor, accounting for 95% of cases. Radical surgery is the primary treatment for patients diagnosed with this type, given its resistance to chemotherapy. However, recurrence occurs in 25%-30% of patients. Tumor recurrences typically average around 7.1cm, but in certain cases, these recurrences can greatly increase, affecting the surrounding

anatomical structures. **Case Report:** We report the case of a 55 year-old female known with total hysterectomy with bilateral adnexctomy in 2015, the histopathological diagnosis at that time indicates an ovarian adult granulosa cell tumor and endometrioid adenocarcinoma with squamous differentiation of the uterine body. The patient presents with mid-abdominal pain, slowed digestive transit, asthenia, and fatigue. Upon physical examination, mid-abdominal tenderness with a parietal defect at the site of the old postoperative scar with an irreducible incisional hernia is noted. CT and PET CT examinations performed prior to hospitalization reveal a left abdominopelvic tumor formation measuring 20x25cm with infiltrative characteristics involving intestinal elements: ileal loops and the descending colon, as well as the antral portion of the stomach. After surgical intervention, the histopathological examination of the extracted specimen categorized it according to the TNM classification as stage T2N0M0R0. **Discussions :** The surgical intervention is the first-line treatment, and the location of tumor recurrence can vary. The most frequent sites of tumor recurrence are the abdominal cavity and the pelvis; additionally, the tumor most commonly metastasizes to the pelvic area, followed by the liver and small intestine. The patient underwent a xiphopubic laparotomy, during which a recurrent giant retroperitoneal tumor (20x25cm) was identified, intimately adherent to surrounding anatomical structures at the abdominal level: the descending colon, the left ureter, and the left iliac vessels. A left hemicolectomy with latero-terminal anastomosis was performed en bloc with the retroperitoneal tumor, which was previously adherent to the left iliopsoas muscle. **Conclusions:** The presented case highlights the importance of surgical treatment in the recurrence of an adult ovarian granulosa cell tumor, aiming to prevent the development of distant metastases, but most importantly, to improve the patient's quality of life.

Keywords: Adult granulosa cell tumor of ovary, Radical surgery, Giant tumor

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TESTICULAR TUMOR WITH MULTIPLE BONE METASTASES IN A 19-YEAR-OLD PATIENT - CASE REPORT

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Introduction: A testicular tumor is a neoplastic growth originating from different cells of the testicles leading to alterations in testicular size, shape or consistency. Within the various forms of testicular cancer, particularly non-seminomatous germ cell tumors (NSGCT), has the potential to metastasize, one of the common sites being the bones. **Case Report:** A formerly healthy 19-year-old male presented with a painful mass in the right testicle and discomfort in the right lower limb. The ultrasound revealed an enlarged right testicle measuring 100mm with disorganized internal structure. Subsequent abdominal and pelvic MRI unveiled a multifocal, well-defined mass exhibiting cystic and solid components, septa, and an adjacent fluid collection. Additionally, there were extensive bone metastases affecting the ribs, spine, pelvis and acetabulum. Laboratory analyses indicated heightened levels of alpha-fetoprotein (AFP) (>30000 UI/mL), beta-human chorionic gonadotropin (b-hCG) (134.3 mUI/mL), and lactate dehydrogenase (LDH) (373 U/L), all of each are representative tumor markers for NSGCT. The chosen therapeutic intervention involved a surgical procedure, specifically a radical inguinal orchiectomy. Notably, the retroperitoneal lymph nodes were not removed. Subsequently, a histopathological examination was conducted to ascertain the tumor's characteristics, essential in the selection of suitable treatment approaches. **Discussions :** Considering the widespread bone metastases and the significantly elevated AFP levels, we can assert that the testicular tumor is in stage IIIC and we suspect that the current case likely involves a NSGCT, probably a choriocarcinoma. **Conclusions:** Testicular cancer often arises in younger males, and interventions like surgery, radiation therapy, or chemotherapy may result in infertility. Orchiectomy stands out as the optimal approach for both diagnosing and treating the condition. However, the presence of bone metastases is indicative of a guarded prognosis.

Keywords: testicular tumor, bone metastases, AFP, orchiectomy

ANKLE ARTHROPLASTY FOR A YOUNG, ACTIVE PATIENT. IS THERE CONTROVERSY? A CASE REPORT.

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Introduction: Tibiotalar arthrodesis was traditionally the treatment of choice for degenerative, inflammatory, or post-traumatic ankle arthrosis. Although ankle arthroplasty emerged as a potential option, initial implants had high failure rates. However, second-generation implants featuring mobile bearings have shown promise in treating young and active patients. **Case Report:** We present a 27-year-old male with severe ankle dysfunction, characterized by pain, swelling, difficult gait, and permanent equinus, following a complex open distal tibia fracture and three surgical interventions: open reduction and internal fixation (ORIF) with plates and screws, secondary removal due to infection, and subsequent joint debridement. The physical examination revealed a markedly reduced range of motion, local inflammation, and an American Orthopedic Foot and Ankle Society (AOFAS) score of 35. Diagnostic imaging included standard and weight- bearing X-rays, and a CT scan assessed the joint and bone quality of the talus. Diagnosed with severe tibiotalar arthritis, the patient opted for ankle arthroplasty over surgical fusion. Pre-operative planning excluded malalignment and instability, and the sizing of the tibial and talar components was determined using templates of the selected Alpha Ankle Arthroplasty implant. This uncemented implant, with a range-of-motion (ROM) of 50 degrees, semi-constrained design, and porous titanium construction, enhances osteointegration. The surgery involved a supine position with a pneumatic tourniquet and tranexamic acid for blood loss control. Procedures included a longitudinal incision, alignment guide assembly, X-ray-controlled alignment, tibial and talar resection and milling, and component insertion, followed by skin closure. Post-operative management entailed stabilizing orthosis for 6 weeks, weight bearing at 3 weeks, and a rehabilitation program after 6 weeks. Clinical and radiological evaluations at 6 and 12 weeks post- surgery confirmed successful primary fixation and osteointegration, with significant pain reduction and functional improvement, reflected in an AOFAS score of 88. **Discussions :** Second-generation total ankle replacements, predominantly semi-constrained, cementless, requiring minimal bone resection, and designed for bone ingrowth, have shown improved outcomes. Advances in materials, design, and surgical techniques have established these implants as viable alternatives to arthrodesis. **Conclusions:** For young, active patients seeking to preserve joint motion and refusing tibiotalar fusion, ankle replacement offers a viable option. However, it is a complex procedure with potential complications, necessitating careful consideration and patient selection.

Keywords: Total ankle arthroplasty, Arthrodesis, Arthrosis, Ankle replacement

BILATERAL SIMULTANEOUS ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION WITH ARTIFICIAL LIGAMENTS

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Introduction: Choosing the appropriate graft for anterior cruciate ligament (ACL) reconstruction presents a significant challenge due to the variety of options available, such as the patellar tendon, soft tissue, quadriceps tendon, and allografts. Despite this, no consensus exists in the literature regarding a gold standard. We propose that a second-generation Ligament Augmentation and Reconstruction System (LARS) serve as a viable option for selected cases, where the benefits of faster rehabilitation may outweigh the slightly lower survival rates reported in the literature (5-9% failure rate at 10 years). **Case Report:** We report the case of a 49-year-old male patient with a history of bilateral knee trauma, ACL rupture, severe medial meniscus lesions on one side, and degenerative joint disease. Despite being moderately active with limited clinical symptoms and moderate instability (Lachman score of 2/4, positive pivot shift, and anterior drawer tests), the patient's dissatisfaction stemmed from instability impacting his ability to ski. Magnetic resonance imaging confirmed chronic bilateral ACL rupture. Following informed consent, the LARS ligament was selected for bilateral simultaneous ACL reconstruction, chosen for its advantages of faster surgery, minimal blood loss and trauma, quicker rehabilitation, and suitability given the

patient's low to medium activity level. The procedure utilized a LARS ligament (8mm, 2 strands) with double fixation: an extracortical adjustable button, femoral and tibial interference screws (made of titanium), and extracortical staple tibial fixation. Total surgery time was just under 120 minutes, with no blood loss. The patient was discharged the following day, achieved partial weight-bearing bilaterally within 24 hours post-surgery, full weight-bearing at 3 weeks, began light jogging at 12-13 weeks, and resumed normal sporting activities at 20 weeks. **Discussions :** Autografts are typically preferred for ACL reconstruction due to their proven long-term success, better integration, and accessibility. Nevertheless, the LARS ligament offers a viable alternative for certain individuals, including those with partial ruptures, older patients with lower activity levels, or those with mild arthritis yet desiring to perform pivoting activities. It provides immediate stability, and has no donor site morbidity, but incurs higher costs and features lower integration rates. **Conclusions:** Bilateral simultaneous ACL reconstruction can be effectively performed in a single operating theater visit using synthetic ligaments like the LARS system. For patients, the advantages of quicker rehabilitation, reduced morbidity, and the convenience of simultaneous surgery may outweigh the higher costs and slightly lower graft survival rates at 10 years.

Keywords: ACL, Synthetic ligaments, LARS, anterior cruciate ligament

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MANAGING EPITHELIAL SPLEEN CYSTS: CHOOSING THE RIGHT THERAPEUTIC APPROACH

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Introduction: Many cases of splenic cyst have been reported in all age groups but they are most frequently diagnosed at a young age, and are usually incidental if the patient has no symptomatology. Cysts can be etiologically divided into non-parasitic, pseudocyst and hydatid. Parasitic cysts are divided into epidermoid, containing serous fluid and containing blood. Another more recent classification identifies four major types: congenital, neoplastic, traumatic and degenerative. **Case Report:** An 18-year-old patient presents in the emergency department with colicky abdominal pain, mainly in the left hypochondrium. A CT scan of the abdomen and pelvis revealed a giant cystic expansive process occupying the entire left hypochondrium. The lesion has a homogeneous fluid content with a compressive effect on adjacent organs, including the kidney. There is also an accessory spleen. For the differential diagnosis, tests for echinococcus granulosus and multilocularis antibodies were also performed and were negative. The therapeutic decision was total splenectomy with preservation of the accessory spleen to avoid complications and haematological complications. The morpho-pathological result was a unilocular cyst with a size of 110x50 mm, sero-hematic content, lined by an epithelium with cubic cells, flattened, unistratified, without atypia. **Discussions :** Symptomatic splenic cysts have a clear indication for surgery. Laparoscopic or classic partial cystectomy is a safe and effective method with minimal morbidity but a significant recurrence rate. Relapses can be small and asymptomatic, so do not always require reintervention. Some symptomatic recurrences may benefit from percutaneous echogenic drainage and only a limited number of cases require surgical reintervention. The second treatment option would be total splenectomy which involves total removal of the spleen without the risk of recurrence. **Conclusions:** Considering the size of the parenchymal organ with cystic content, which by the pressure on the surrounding organs generates specific symptoms, the correct therapeutic decision was total splenectomy and not cyst drainage or partial splenectomy. The presence of accessory spleen facilitated replacement of the excised organ functions.

Keywords: Epithelial cyst, Total splenectomy, Unilocular cyst

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FIGHTING THE FLAMES: SURGICAL MANAGEMENT OF FOURNIER'S GANGRENE IN A DIABETIC PATIENT WITH MULTIMORBID CONDITIONS

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Introduction: Fournier's gangrene, a rare condition with a high mortality rate, predominantly affects males beyond their third decade, often concomitant with comorbidities such as diabetes, chronic alcoholism, atherosclerosis, and obesity. **Case Report:** A 72 year old male, known for chronic ischemic heart disease, NYHA class 2 heart failure, untreated diabetes, and grade 3 obesity, presented to the surgery clinic with acute perineal and scrotal pain persisting for two weeks. Clinical examination revealed fever, altered general condition, intense perianal and pelvic

pain, swelling, fluctuating at this level, extending to bilateral scrotum and base of the penis. Diagnosis of perianal abscess, Fournier gangrene, and scrotal edema was confirmed following history, clinical, and paraclinical examinations. Due to septic condition, emergency surgery was performed, including necrectomy, left orchiectomy, left inguinal and left ischiorectal lavage, and drainage. Initial pus microbiological analysis demonstrated aerobic and anaerobic flora. The wound showed good evolution, and the patient was discharged in stable condition after one month of hospitalization. **Discussions :** Fournier's gangrene can arise from various factors, including perineal surgery, colovesical fistula, cysts, or poor hygiene, likely resulting from interactions among multiple bacterial species and their metabolites. Treatment considerations should address uncontrolled diabetes mellitus, which may exacerbate wound severity by promoting severe and complicated infections, and obesity, which facilitates bacterial accumulation in skin folds and exacerbates cardiac pathology. Additionally, regular chemical and mechanical debridement of the wound between surgical interventions is essential for infection control and proper wound healing. **Conclusions:** This case underscores the severity and complexity of Fournier's gangrene, emphasizing the critical role of prompt, aggressive, and multidisciplinary management. Awareness of Fournier gangrene risk in patients with comorbidities is essential for personalized and vigorous intervention to enhance prognosis and avert serious complications.

Keywords: Fournier's gangrene, Obesity, Diabetes

LAPAROSCOPIC RADICAL NEPHRECTOMY FOR MASSIVE RENAL TUMOR – CASE REPORT

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Introduction: Laparoscopic nephrectomy has been established as the standard of care for the management of kidney tumors due to its safety, feasibility and lower risk of post-operative morbidity. In the past decade laparoscopic approach has gained worldwide popularity. **Case Report:** We present the case of a 48-year-old female diagnosed with voluminous left kidney tumor who was admitted in the Urology Clinic from Targu Mures. The patient's history reveals that she had radical hysterectomy for endometrial cancer. The BMI is equal to 50,78 (weight of 130 kg and the height of 160 cm) resulting in morbid obesity. Preoperative blood results are within parameters. Abdominal ultrasound and computed tomography revealed a tumor mass located in the left kidney superior pole measuring 78/80 mm, without lymph node or distant metastases. **Discussions :** Transperitoneal laparoscopic approach was considered the optimal access of choice. Surgical technique was left laparoscopic radical nephrectomy with left suprarenalectomy. Intraoperative incidents were not significant and the loss of blood was minimal (100 ml). Drainage was removed 5th day after the surgery and the hospital stay was 6 days. Postoperative histopathological results revealed clear cell renal carcinoma of the left kidney, grade WHO/ISUP grade 2, left adrenal gland without pathological findings. **Conclusions:** Laparoscopic nephrectomy was proven to be a better option in the removal of renal tumor because of the better visualization of anatomical structures, less need for postoperative analgesics, minimal blood loss, lower risk of postoperative complication and morbidity rate, potentially lower costs due to shorter hospital stays. Moreover, in case of obese patients, the laparoscopic approach is preferred over open surgery because of the smaller incisions who lead to less postoperative complications and a faster recovery. A classic nephrectomy can cause serious complications in patients with elevated body mass index due to high incidents of wound infections and dehiscence that can lead to catastrophic results.

Keywords: laparoscopic radical nephrectomy, renal cell carcinoma, suprarenalectomy, minimal blood loss

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A SURGICAL PERSPECTIVE: RECONSTRUCTIVE STRATEGY IN LOWER EYELID CANCER

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Introduction: The infiltrative basal cell carcinoma is the most common malignant skin cancer worldwide. It is locally aggressive and rarely metastasizes, which is closely related to increased sun exposure. The ulcerative forms of infiltrative basal cell carcinoma have a reserved prognosis because of their infectious and hemorrhagic

complications. Usually, the excision is made at approximately 0,4 cm from the apparent edge of the tumor, but the excision may be enlarged if the cancer exceeds 2 cm across, with the ulterior reconstruction of the remaining defect. **Case Report:** This case report is based on an 85-year-old male patient diagnosed with an ulcerative and infiltrative basal cell carcinoma on the lower eyelid of the right eye and other multiple secondary diagnoses. Intraoperatively, we explored the cancer area by dissection and we found a tumoral formation that infiltrates the deep tissues at the level of the inferior wall of the orbit. We performed the excision of tumor tissue to send it to the Pathology Department for a histopathological examination. Then we covered the remaining defect with a local rotated flap from the level of the upper eyelid with the lower eyelid edge reconstruction and a local advanced "V-Y" flap from the level of the zygomatic region. We finished the surgical procedures with padding, intradermal suture and suture with fixed wires. Furthermore, we made an external contention with steri-strips and sterile dressings. Postoperatively, the evolution was favorable, with a clean wound, without any inflammatory signs, with palpebral ecchymosis and edema in progress of remission. **Discussions :** In basal cell carcinoma, the gold standard therapy remains surgery, but the establishment of new methods is considered, especially in aggressive basal cell carcinoma with invasions and extensions, where interventions with mutilating resections are assumed, or when the patient cannot make any surgery or it is not indicated because of his medical conditions. **Conclusions:** Reconstruction of lower eyelid defects, such as this infiltrative basal cell carcinoma, remains a difficult challenge in plastic surgery because of its functional consideration, anatomical complexity and aesthetic interest.

Keywords: infiltrative basal cell carcinoma, local rotated flap, local advanced “V-Y” flap

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CHALLENGING CONVENTIONS IN ELBOW ARTHROPLASTY: A CASE REPORT ON SEVERE OPEN FRACTURES WITH EXTENSIVE BONE LOSS

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Introduction: Increasing the use of total elbow arthroplasties challenges conventional contraindications, as demonstrated in our case study of a type III C open fracture. Despite potential complications, our approach prioritized patient comfort and limb functionality, emphasizing the importance of infection prevention, soft tissue coverage, and timely intervention. This paper highlights the feasibility and outcomes of elbow prostheses in complex fractures, advocating for flexible surgical strategies. **Case Report:** In an intricate case of severe upper extremity trauma resulting from a car accident, a 50-year-old patient underwent a comprehensive treatment culminating in total elbow arthroplasty (TEA) using an endoprosthesis, one-year post-injury. Initial injuries included type III C open fractures of the left distal humerus and proximal forearm, with substantial bone loss and nerve damage. Following initial wound debridement and stabilization, the focus shifted towards restoring elbow function through arthroplasty. The TEA procedure was meticulously planned to address the challenges posed by previous trauma and the extensive loss of bone. A significant aspect of this surgery was the utilization of a prosthetic device, which obviates the need for condylar reconstruction, thus simplifying the integration into the existing bone structure. Preparation involved careful rasping of the humerus and ulna, ensuring a precise fit for the prosthesis. The surgical strategy included the use of high-viscosity cement for securing the prosthesis, reinforced by a cerclage band for added stability. Moreover, a bone allograft compensated for the pronounced bone deficit, highlighting the adaptability of the chosen prosthesis to complex cases. Postoperative results demonstrated a substantial improvement in elbow functionality. Despite a permanent limb shortening, the patient achieved significant gains in motion range and muscle function, underscored by a notable increase in the Mayo Elbow Score from 30 to 80. Radiographic follow-up confirmed the successful integration of the prosthesis, without evidence of radioulnar synostosis. **Discussions :** Our case report emphasizes the effective application of TEA in managing a complex open fracture with significant bone loss and nerve damage, challenging traditional contraindications. It underscores the importance of timely, multidisciplinary intervention, meticulous initial osteosynthesis, and postoperative rehabilitation, highlighting TEA's expanding therapeutic indications despite potential complications such as ulnar nerve palsy. **Conclusions:** This case exemplifies the critical role of TEA in the rehabilitation of severe elbow injuries. The use of a prosthetic device, alongside strategic surgical interventions, facilitated remarkable functional recovery, offering insights into managing challenging orthopedic cases.

Keywords: Elbow arthroplasty, Mayo Elbow Score, open fracture

LAPAROSCOPIC MANAGEMENT OF PANCREATIC HEAD INSULINOMA: ADVANTAGES AND CHALLENGES

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Introduction: Insulinoma is a rare tumor of the pancreas that develops from the beta cells of the Langerhans islets, responsible for the production and secretion of insulin. This hypersecretion of insulin can lead to hypoglycemia, which can cause symptoms such as dizziness, confusion, weakness, and, in severe cases, loss of consciousness. The case presentation addresses the management of a pancreatic insulinoma in a patient previously treated for diabetes. **Case Report:** We present the case of a 66-year-old patient who is admitted with repeated episodes of loss of consciousness, dizziness, confusion, and hot flashes, along with fluctuating blood glucose levels. Additionally, she has been treated for diabetes mellitus for 3 years during which she has experienced 2 hypoglycemic crises (blood glucose levels of 30 and 50 mg/dL). Following the symptoms, an MRI with contrast reveals a slightly gadolinophilic tumor formation measuring 21/20 mm. Subsequently, a biopsy puncture is recommended, which demonstrates a microscopic appearance and immunohistochemical markers (positive for insulin) compatible with a well-differentiated neuroendocrine tumor. Correlating the imaging diagnosis, histopathological findings, laboratory analyses, and symptoms, we establish the preoperative diagnosis of insulinoma. The patient is admitted to the Department of General Surgery of the Emergency County Clinical Hospital Târgu Mureș with an indication for surgical treatment. **Discussions :** After preoperative preparation, an exploratory laparoscopy is performed with an approach to the right hypochondrium. Laparoscopic adhesiolysis is performed, followed by dissection of the duodeno-pancreatic region and enucleation of the tumor. The objectives of laparoscopic intervention for pancreatic insulinoma include rapid postoperative recovery with low morbidity. Precise identification of the tumor and adjacent structures; excision of the tumor, ensuring the integrity of healthy tissues; minimizing injuries and bleeding during the procedure to reduce the risk of complications. **Conclusions:** In conclusion, the clinical and paraclinical differential diagnosis along with laparoscopic surgical treatment represents an efficient and safe option in the management of insulinoma.

Keywords: insulinoma, laparoscopy, hypoglicemia, enucleation

MINIMAL INVASIVE CARDIAC SURGERY IN MITRAL VALVE ENDOCARDITIS

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Introduction: Minimal Invasive Cardiac Surgery (MICS) is a type of procedure which can be done with lesser blood loss, reduced postoperative wound healing and complications compared to traditional open cardiac surgery approaches. This gave an opportunity for various procedures to be carried out, such as coronary artery bypass grafting (CABG), valve or congenital cardiac surgery. On the other hand, MICS has disadvantages, since it is an expensive procedure and requires specialized training at dedicated centers. **Case Report:** Our patient is a 37-year-old male, who presented to the hospital with moderate dyspnea, fatiguability and palpitations. He shows the clinical picture of severe mitral regurgitation and moderate tricuspid regurgitation, heart failure of NYHA class II, moderate pulmonary hypertension, paroxystic atrial fibrillation, deep vein thrombosis (DVT) on the right lower limb with post-thrombotic syndrome - ulcerative lesion (MRSA Staphylococcus Aureus), urinary tract infection and sepsis (May 2022). The echocardiography showed the following: severe mitral regurgitation, myxomatous leaflets, eccentric regurgitation jet towards the lateral wall of the left atrium, I/II tricuspid regurgitation, LVEF 60%. The surgical technique includes a standard presetting for the minimally invasive approach via right thoracotomy, video assisted with 4-5 cm incision in the 4th intercostal space, which is followed by a complex mitral valvuloplasty by suturing the anterior mitral valve leaflet with heterologous pericardial patch and mitral annuloplasty. During the surgical procedure, the patient is on cardiopulmonary bypass with peripheral arterial and venous femoral cannulation. Intraoperative testing and transesophageal echocardiography showed no residual regurgitation. **Discussions :** The particularity of the case is the medical history of the patient, known with DVT in the right lower limb with post-thrombotic syndrome and an ulcerative lesion positive for MRSA Staphylococcus Aureus. Another particularity is the intraoperative discovery of anterior mitral leaflet perforation as the result of undiagnosed endocarditis. The minimal invasive approach in visualizing and repairing the mitral valve encourages increasing its

use in complex cases. **Conclusions:** In conclusion, minimal invasive surgical technique for isolated mitral pathology is a safe technique with superior results to conventional techniques. Despite being expensive and requiring professional training, the advantages such as easy surgical approach for mitral valve visualization, faster postoperative recovery, reduced hospitalization days, decreased wound complications, and with better aesthetic outcomes makes this technique superior to classical techniques. In this case the follow-up echocardiography showed no residual regurgitation. The patient was discharged without postoperative complications.

Keywords: MICS, mitral regurgitation, DVT, endocarditis

DIAGNOSTIC AND THERAPEUTIC CHALLENGES IN HEMORRHAGIC ESOPHAGO-GASTRIC TUMORS: A CASE REPORT AND MANAGEMENT OVERVIEW

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Introduction: Esophago-gastric tumors manifesting hemorrhagic symptoms and substantial weight loss present diagnostic and therapeutic complexities. Upper gastrointestinal bleeding linked to a gastric tumor denotes that the bleeding originating from the upper digestive tract above the ligament of Treitz, which includes the esophagus, stomach, and proximal small intestine. This bleeding occurs concurrently with an unidentified neoplastic lesion within the gastric milieu. **Case Report:** Our 48-year-old patient presented to the emergency ward with dysphagia, upper gastrointestinal bleeding externalized through hematemesis, marked weight loss over a short period of time. Biological investigations showed a moderate hypokalemia which was successfully corrected. The abdominal CT imaging unveiled a mass at the lesser curvature of the stomach, so upper digestive endoscopy was performed. Thus, a highly edematous gastric mucosa and a tumor formation with infiltrative characteristics were revealed. The tumor showed signs of spontaneous bleeding, partially obstructing the gastric lumen. The infiltration of the gastric walls within the fornix and the lesser curvature was conspicuous. Intravenous therapy, including isotonic saline, proton pump inhibitor, hemostatic agent, vasopressor, antiemetic, and analgesic led to significant clinical and biological improvement. The patient was discharged with home treatment recommendations, gastric biopsy revealing low-grade infiltrative adenocarcinoma. **Discussions :** Eso-gastric tumors can have a variety of manifestations, starting from unspecific symptoms such as bloating or other dyspeptic-like manifestations, to classical red-flags such as uncontrolled weight loss over a short period of time and loss of appetite. Tumors can complicate with gastrointestinal bleedings and endoscopic management can be quite a challenge, requiring in selected cases interventional hemostatic therapy. After successful hemostasis, tumor management should be made following the current guidelines, from radio-chemotherapy to endoscopic mucosal or submucosal resection in selected cases or surgery. **Conclusions:** Gastrointestinal tumors represent a more and more frequent pathology, having multifactorial origins, from genetic luggage of the individual to alimentation and environmental exposure. Managing these types of tumors can be a challenge, treatment should be individualized and serological and endoscopic screening should pe performed in high-risk population.

Keywords: Esophago-gastric tumor, Gastrointestinal bleeding, Endoscopy

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RECONSTRUCTION OF POST-STERNOTOMY ANTERIOR THORACIC WALL DEFECT USING A RECTUS ABDOMINIS MUSCLE FLAP

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Introduction: Reconstruction of anterior thoracic wall are considered a challenge regarding restoration of form and function. Sternum dehiscence represents a possible complication after cardiac surgery especially in non-compliant, multiple-operated patients. Muscular flaps provide an excellent option for stable soft tissue defects coverage as well as a well vascularised surface. **Case Report:** This paper presents the case of a 75-year-old male patient with a complex medical record of multiple cardiovascular and lung diseases who was transferred from IUBCvT to Plastic and Reconstructive Surgery Compartment of Târgu-Mureș for a post sternotomy wound dehiscence. Previous interventions that required this maneuver consisted in aortic valve replacement and coronary artery bypass followed by sternal osteosynthesis using stainless steel wires. The first intervention was minimal due to patient post-surgical complications (osteitis, mediastinitis, bilateral pachypleuritis) and consisted in soft tissue debridement, eschilectomy, thoracentesis for bilateral pneumothorax performed by thoracic surgeon and sutures in

anatomical planes. Reintervention was required due to poor post-operative care after hospital discharge and recurrence of the initial dehiscence. Reconstruction of the thoracic wall was tempted using two local advancement cutaneous flaps with unfavourable results and flaps necrosis. Substantial debridement of the necrotising tissue with sternal osteotomy were necessary to create a favourable ground for reconstructive methods. For proper coverage of the exposed mediastinum a rectus abdominis muscle flap rotated on its proximal pedicle was placed over the sternum. After a midline incision was performed, the muscle was dissected from its fascial layer with the visualisation of superior epigastric artery and deep inferior artery, the latest being ligatured after suprapubic muscle sectioning. After rising the flap over the defect, coverage was ensured by a skin graft harvested from the anterior aspect of the left tight and the abdominal fascia was reinforced using a polypropylene surgical mesh. Post-operative the patient is admitted to the ICU for supportive treatment. **Discussions :** After a 5-day follow-up the muscular flap was viable, with minimal 4/2cm marginal skin graft necrosis for which negative pressure wound therapy (Vivano) was applied. Sutures were removed progressively at 2-3 weeks after the surgery without any further complications and spontaneous epithelization of skin graft necrosis site. **Conclusions:** A notable improvement in clinical results and patient improving health condition was made possible by the effective use of a multimodal therapy strategy. The significance of proper reconstructive techniques and preparation in the management of intricate postoperative complications is demonstrated by the notable final result of the presented case.

Keywords: rectus abdominis flap, thoracic wall reconstruction, negative pressure wound therapy, negative pressure wound therapy

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ADVANCING ORTHOPEDIC CARE: TAILORED APPROACHES AND INTRAMEDULLARY FIXATION FOR COMPLEX SHAFT FARCTURES OF THE TIBIA (AO 42-C)

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Introduction: Fractures resulting from low-height falls represent a significant subset of orthopedic injuries with distinct clinical considerations. Despite the seemingly minor nature of the falls, these fractures require specific attention due to their impact on patient mobility and function. This case report aims to emphasize the importance of tailored approaches for these types of fractures, and also to compare the different fixation techniques available for orthopedic surgeons at the moment. **Case Report:** We present the case of a 49 year old patient who was presented to the emergency department after falling from an altitude of approximatively 1 meter. After physical and imagining examination the diagnosis was: open type IIIA Gustillo-Anderson spiral bifocal right tibial shaft fracture (AO 42-C2), bifocal right fibular shaft fracture and comminuted fracture of the proximal fibular epiphysis. The wound was meticulously cleaned, a compressive dressing was applied, and after appropriate preoperative preparation, emergency surgery was performed. It consisted of the closed reduction of the fracture of the right tibia and osteosynthesis with a statically locked Stryker T2 11x345mm intramedullary system through an infrapatellar approach. Postoperative evolution was favorable, the patient being afebrile, hemodynamically and respiratory stable, with a decrease in pain symptoms locally and surgical wounds in the process of primary healing, without inflammatory signs and pathological secretions. **Discussions :** Prior to the introduction of intramedullary systems, external fixation was the main stabilization method used for open tibial fractures due to their stable fixation and minimal additional damage of soft tissue. However, the use of external fixation has been associated with a high incidence of infections and malunion. Furthermore, the relatively intricate structure of external fixators complicates soft tissue reconstruction procedures. Intramedullary systems surpass the drawbacks that external fixation presents, offering better mechanical proprieties, that facilitate even the use of Masquelet technique after proper stabilization is achieved. This procedure focuses on managing posttraumatic long bone defects as seen on the distal tibial fracture site in our case, by placing an antibiotic cement spacer followed by staged bone grafting. **Conclusions:** Overall, this case underscores the importance of evolving surgical techniques and the adoption of intramedullary systems for treating fractures types I-IIIA Gustillo-Anderson , ultimately leading to improved patient outcomes.

Keywords: Gustillo-Anderson, Masquelet technique, intramedullary system

SPONTANEOUS RUPTURE OF THE URINARY BLADDER AND ITS COMPLICATIONS – A CASE REPORT

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Introduction: Urinary bladder rupture is a pathology more common in males and may occur in the context of various conditions: abdominal traumas, inflammatory diseases, iatrogenic injuries. One of its most severe complications is urohemoperitoneum, representing a surgical emergency characterized by severe abdominal pain, distension, and abdominal tenderness. Left untreated, it presents a high mortality and morbidity rate. **Case Report:** We present a 46-year-old man, diabetic, chronic alcohol consumer, who presented to the Emergency Department complaining of progressively worsening dyspnea at rest, progressive abdominal distension, associated with diffuse abdominal pain, dysuria, and oliguria for about a week. The patient reported an episode of acute urinary retention 8 days ago, for which urethral-vesical catheterization was performed. CT examination revealed significant intraperitoneal fluid accumulation, as well as images suggestive of clots on both flanks, more pronounced in the supravesical pelvic region, and cystography under CT control showed bladder rupture at the dome level. Subsequently, emergency surgical intervention was performed, and exploratory laparotomy revealed the presence of hematuric urine in the intraperitoneal cavity in large amounts - 10 liters, with features suggestive of an older bleeding. Viscerolysis was performed, a 4 cm defect was identified in the posterior bladder wall, excisional debridement of bladder defect margins and double-layer cystorrhaphy were performed, with placement of a Foley urethral-vesical catheter. Abundant abdominal lavage was performed. The patient was diagnosed with urohemoperitoneum due to spontaneous bladder rupture. **Discussions :** The therapeutic approach to bladder rupture complicated by urohemoperitoneum must be prompt and correct, clinically evaluated, biologically and through imaging examinations, which contribute to establishing and implementing therapeutic methods. CT examination and cystography played an essential role in diagnosis, abdominal CT providing detailed images of the abdominal region, allowing presumptive identification of urinary bladder rupture, as well as evaluation of urohemoperitoneum extension, and cystography confirming the diagnosis and providing information about the rupture location. **Conclusions:** Urohemoperitoneum is a potentially fatal complication, but when promptly treated with care and specific interventions, the patient can make a complete recovery.

Keywords: bladder rupture, urohemoperitoneum, hematuria

MANAGEMENT OF GIST DUODENAL TUMOR WITH A SINGLE HEPATIC METASTASIS

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Introduction: Gastrointestinal stromal tumor (GIST) is the most common sarcoma located in the gastrointestinal tract and derives from the interstitial cell of Cajal lineage accounting for 80% of all such GI tumors, and 1 to 3% of all gastrointestinal malignancies. GIST cells highly rely on KIT signal pathway. **Case Report:** We report a case of a 54 year old female complaining of pain in the right hypochondrium with posterior irradiation, of increased intensity. The patient was operated in 2014, of a gastrointestinal stromal tumor (GIST with reduced mitotic activity), without neoadjuvant treatment. CT of the abdomen reported a large tumor (20/18 cm) in the right liver lobe. Right hepatectomy and cholecystectomy was performed. Intraoperatively a breach in the middle suprahepatic vein and aspiration occurs. The incident was not followed by complications, the patient did not develop gas embolism. Postoperative evolution was favourable until postoperative day 4 when the patient developed hepatic encephalopathy. Histopathology revealed a 23.5/18.5/9.5 cm liver resection specimen, with deformed capsule and numerous nodular formations of whitish color with brown areas. Adjacent to the tumors formation, satellite nodules were present, with the same appearance as the tumor formation. Microscopic examination of macroscopically described nodules revealed a mixed epithelioid and spindle-shaped pattern. The nodules also compressed adjacent liver tissue, did not extend beyond the liver capsule and did not invade the resection margin. The immunohistochemical profile of tumor cells was as follows: C-kit focal positive. Treatment involved radical surgical resection and adjuvant targeted molecular therapy - TKIs (tyrosin kinase inhibitors): Imatinib and Sunitinib. **Discussions :** Malignant GISTs are rare tumors that account for a small percentage of the gastrointestinal

neoplasms. The most common primary site is the stomach (60%-70% of the cases), while 20%-30% of the cases are located in the small intestine. Liver metastases occur in 2 out of 3 cases. The curative intent is the complete excision of the tumor, with a clear margin. The risk of malignancy and prognosis depends on the tumor size, mitotic rate and the site of origin. It has been shown that molecular targeted therapy using tyrosine kinase inhibitors like Imatinib and Sunitinib (for CD117 mutations) increase the overall survival. **Conclusions:** To conclude, GISTs are rare tumors that account for a small percentage of gastrointestinal neoplasms. These tumors require a multidisciplinary approach and postoperative targeted molecular therapy. Further research is needed in order to improve prognosis.

Keywords: GIST, hepatectomy, molecular therapy

SPONTANEOUS RETROPERITONEAL HEMATOMA (SRH) ASSOCIATED WITH ILIAC VEIN RUPTURE LEADING TO CARDIAC ARREST

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Introduction: Spontaneous retroperitoneal hematoma (SRH) is a rare but potentially life-threatening condition marked by blood accumulation in the retroperitoneal space. Causes include, renal tumor rupture, aortic aneurysm rupture, trauma, and spontaneous iliac vein rupture. In our case, SRH was linked to iliac vein rupture concurrent with deep vein thrombosis (DVT), further complicated by cardiac arrest. **Case Report:** A 62-year-old female patient, without significant medical history, brought in Emergency Department by ambulance, in cardiac arrest. Upon arrival she presented pulseless electrical activity, prompting resuscitation. Patient was transferred from the Reghin Hospital with suspicion of femoral neck fracture and DVT in the left lower limb, evident by edema. Pulmonary embolism (PE) was considered as the likely cause of cardiac arrest, but the nurse who accompanied her, reported abdominal pain during the transfer, prompting an abdominal ultrasound (US) during resuscitation to check for internal bleeding, which was negative. A cardiac US to assess for PE couldn't confirm or rule out PE. She had a severe metabolic acidosis despite fluid resuscitation and NaCO3 administration and a decrease in haemoglobin by 3g/dl was observed on repeat analysis 20 minutes after initiation of resuscitation manoeuvres. The patient's husband denied any trauma. Return of spontaneous circulation was noted after 30 minutes and a thoracic CT was conducted, ruling out PE. However, a contrast-enhanced abdominal CT revealed massive SRH associated with thrombosis of the inferior vena cava, iliac vein, femoral vein on the left side. Vascular surgeon was consulted. Upon exploration in the operating room, massive retroperitoneal hematoma that was ruptured into the peritoneal cavity, initially suspected to originate from the psoas muscle, was found. The hematoma was surgically evacuated and the patient was transferred to the intensive care unit. Unfortunately, she died couple of hours later. However, subsequent examination in the morphopathology department revealed it was secondary to iliac thrombosis, which had ruptured, leading to the retroperitoneal hematoma. **Discussions :** Diagnosing and management of SRH is challenging due to its rarity and complexity. In our case, the patient's arrival in cardiac arrest, with limited medical history made the diagnosis more difficult. **Conclusions:** A patient with concurrent life-threatening thrombosis and haemorrhage presents a challenge in both diagnosis and management. In our case despite successful resuscitation and recognition of the two life threatening pathologies, due to the late presentation, the outcome was unfavourable.

Keywords: Spontaneous retroperitoneal hematoma, Rupture of the iliac vein, Iliac vein thrombosis

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CORRECTION OF DOUBLE BOUBBLE DEFORMITY USING FAT GRAFTING AND CAPSULAR SCORING-A CASE REPORT.

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Introduction: The double bubble deformity is a rare but unpleasant aesthetic complication in breast augmentation surgery. Due to the persistence of the very well accentuated inframammary groove, the appearance of the breast gives the impression of the existence of two bumps separated by a fold. **Case Report:** The use of techniques to correct this deformity, is to improve the appearance and avoid further complications. As a case study, we will have a thirty-four-year-old female patient, who, after breast augmentation with round implants, presented at the clinic

with a double bubble deformity in the lower and lateral quadrant of the breast. The appearance of the breast was with two growths delimited by a deep fold which disturbed the patient from an aesthetic point of view. **Discussions :** The clinical examination , highlighted the existence of an asymmetric contour of the breasts and the exacerbation of a visible fold that separates the two inflamed tissues. For the correction of this case, which took place nine months after the primary surgical intervention, it was decided to perform a scoring at the capsular level, which consists in releasing the constrictive fibrous tissue and facilitating the optimal positioning of the breast implant and then grafting own fat to fill the visible fold on the inferolateral face of the breast. The post-operative result was satisfactory, obtaining a significant improvement in the contour and the symmetry of the breasts. The double bubble deformity completely disappeared at the six-month post-operative check-up. **Conclusions:** The presented case report, exemplifies the importance of the combined techniques of capsular scoring, to relax the ligaments of the inframammary fold , fat grafting, to fill the formed fold, and also the ability of the surgeon to use it appropriate.The surgical intervention is simple, with very low risks and quick recovery for the patient, which offers a very good aesthetic result.

Keywords: Double bubble deformity, capsular scoring, fat grafting, surgical intervention

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THE TREATMENT OF HYDROCELE USING THE JABOULAY TECHNIQUE

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Introduction: Hydrocele represents the most common cause of enlargement of the scrotal sac, caused by the accumulation of fluid between the layers of the tunica vaginalis of the testis. Its treatment, in the majority of cases, is surgical. Etiologically, it is divided into two categories: congenital - caused by the persistence of the processus vaginalis resulting in communication between the peritoneal and vaginal cavities; acquired, which is further subdivided into: secondary - appearing in response to an underlying pathology such as testicular neoplasm, and idiopathic. **Case Report:** A 42-year-old patient presents to the hospital complaining of painless enlargement of the right hemiscrotum. According to the medical history, a progressive onset of symptoms over the last 6 months is noted, without any prior history of testicular pathologies or traumas. Local examination reveals an enlarged scrotal sac, painless, with a soft consistency, without changes in volume during the examination, transilluminating, suggestive of a right hydrocele. Regarding the paraclinical examinations, general analyses do not show any pathological changes; inguinoscrotal ultrasound reveals the presence of a transonic fluid collection within the tunica vaginalis, confirming the suspicion of hydrocele, while simultaneously excluding differential diagnoses such as inguinal hernia. **Discussions :** When it comes to the treatment of hydrocele, there are several therapeutic approaches, each with specific advantages and disadvantages. A hydrocele in a pediatric patient up to 1 year old is likely to resolve spontaneously without the need for any medical intervention, whereas a hydrocele in a child older than 2 years or an adult always requires surgical intervention. Among the treatment options, we find hydrocele drainage followed by the injection of sclerosing agents, but the treatment of choice remains open surgery using the Lord or Jaboulay techniques, depending on the case's particularities. Both techniques involve opening and draining the hydrocele sac followed by its plication, in the case of the Lord technique, respectively eversion, excision of the excess sac, and suturing it along the posterior margin of the testicle in the case of the Jaboulay technique. **Conclusions:** Hydrocele represents a relatively benign pathology in terms of symptoms, with pain being rarely encountered in the clinical picture, but it requires increased attention, especially in the case of young individuals, due to the underlying causes that may determine it, such as testicular neoplasm. Surgical intervention, along with the choice of an appropriate and correctly executed technique, is the key to therapeutic success in this pathology.

Keywords: hydrocele, Jaboulay, treatment

ANAPLASTIC EPENDYMOMA III WHO

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Introduction: The simple characterization of the ependymoma would be a rare developing tumor with a neuroectodermal origin. This disease occurs frequently in the brain of pediatric patients and it can be classified by the mechanisms involved in carcinogenesis and proliferation. **Case Report:** CE, a 2 years old boy is diagnosed

with a giant tumor in the left frontal lobe that is extended contralaterally, walk disorder and diplopia. The diagnostic is sustained by the following: EEG asymmetric background path in the frontal derivations (hypervoltage theta/delta rhythm) left FCT. Conclusions: Left FCT lesional focus, IRM-dimension 96/86/73, the voluminous tumor occupies the entire left frontal lobe, extended subfalciformly, the structure is inhomogeneous, both cystic and parenchymatous, diffusion restriction, spots of subacute and chronic bleeding, mass effect on the adjacent structures. The patient had multiple surgeries for the gross resection of the tumor with intraoperative monitoring and neuronavigation. The proton therapy was realised in France after the radical resection of the ependymoma. **Discussions :** Based on risk stratification of this rare disease, the clinical management is truthfully demanding and requires an international collaboration. The treatment consists in gross total resection followed by proton radiation therapy. Chemotherapy does not provide any use as primary treatment and it is still under studies. **Conclusions:** The multidisciplinary cooperation and international collaboration made the treatment a real success due to the complexity of the disease.

Keywords: Ependymoma, radiotherapy, chemotherapy, tumor

TRANSVERSE COLON CANCER PRESENTING AS TUMOR INTUSSUSCEPTION LEADING TO INTESTINAL OBSTRUCTION: A SURGICAL CASE REPORT

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Introduction: Tumor intussusception in transverse colon cancer involves the telescoping of a segment of the colon into an adjacent part, often triggered by a tumor acting as a lead point. It is more common in pediatric cases, while in adults, it frequently indicates an underlying malignancy such as transverse colon cancer. **Case Report:** Our paper aims to present the case of a 39-year-old female patient diagnosed with intestinal occlusion caused by neoplasia of the transverse colon. The patient was admitted to First Surgical Clinic -SCJU Tg. Mures via UPU-SMURD were she accused of severe abdominal pain with the absence of intestinal transit. The abdominal CT scan indicates significant hydroaeric levels measuring 10 cm in the ascending and right half of the transverse colon. Additionally, there is evidence of obstructive syndrome of the left transverse colon characterized by a double wall invagination of the transverse colon extending over a length of 9 cm (intussusception). The surgical procedure performed was a right hemicolectomy with ileocolic mechanical anastomosis. **Discussions :** The patient's postoperative recovery proceeded smoothly without early or delayed surgical complications. She was discharged after eight days of hospitalization without encountering any complications. The histopathological postoperative report revealed mucinous adenocarcinoma of the transverse colon with high-grade malignancy (MSI-H). **Conclusions:** This case underscores the complexity of diagnosing and treating intussusception in adults, where such occurrences often indicate an underlying malignancy. Furthermore, this case highlights the necessity for vigilance in evaluating adult intussusception as a potential sign of serious underlying conditions, including malignancy.

Keywords: transverse colon cancer, intussusception of the colon, right hemicolectomy

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RARE CASE OF AMPULLARY CARCINOMA ASSOCIATED WITH AN ANATOMICAL VARIANT

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Introduction: An ampullary carcinoma is a cancer that arises in the ampulla of Vater. It is a tiny opening in the beginning segment of the small intestine called the duodenum. Pancreatic and bile duct fluids are pumped into the intestines via the ampulla of Vater. Jaundice is the most common symptom of ampullary cancer. This is because the tumor in the ampulla of Vater blocks the bile duct. Instead of flowing into the intestines, the bile enters the bloodstream and causes yellowing of the skin. Other symptoms of ampullary cancer include: loss of appetite and weight loss, abdominal pain and vomiting. This case of ampullary carcinoma is associated with pancreas divisum which is a congenital anomaly where dorsal and ventral buds fail to fuse during fetal development in the seventh week of intra-uterine life. This leads to a dominant dorsal pancreatic duct draining though the minor papilla and a small ventral pancreatic duct draining through the major papilla. **Case Report:** We report the case of a 67 years old female who presented with abdominal pain in the upper and lower abdomen, vomiting for two days and a

history of weight loss (20 kilos in 5 months). The patient previously underwent appendectomy, laparoscopic cholecystectomy and varicose vein surgery on both limbs. The patient underwent investigations such as blood tests, histopathology, ultrasonography, computer tomography and ampullary mass biopsy, based on which a final diagnosis was made. Following the diagnosis, a pancreaticoduodenectomy was performed alongside hysterectomy with bilateral adnexectomy. **Discussions :** Considering that the patient has a congenital anomaly of the pancreas, we can raise the question whether this anatomical variant represents a risk factor for the development of ampullary cancer, or if in this situation the pancreas is more prone to other pathologies or not. The surgical approach chosen was the Whipple procedure, a complicated operation that can lead to complications such as fistula or leak in the pancreas, leakage of bile or haemorrhage occurring postoperatively, which requires blood transfusion or reopening. **Conclusions:** Ampullary carcinoma is a very unusual form of carcinoma but can be treated with Whipple procedure. Ampullary carcinoma has a better outcome than pancreatic cancer. It can be managed surgically and the survival rate has also improved.

Keywords: Ampullary carcinoma, pancreas divisum, Whipple procedure

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HEMI-CLAMSHELL APPROACH FOR BILATERAL MEDIASTINAL GOITER WITH SEVERE TRACHEAL COMPRESSION

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Introduction: Mediastinal goiters are a rare type of thyroid enlargement which in the majority of cases represents the extensions of a cervical goiter through the thoracic inlet into the mediastinum. True mediastinal goiters originating from ectopic thyroid tissue are extremely rare. The evolution of mediastinal goiters typically spans across decades with some patients remaining asymptomatic for years. The main symptoms of large mediastinal goiters are related to compression of mediastinal structures, especially the trachea. The treatment of choice consists in total surgical excision of the cervical and mediastinal components, which in some cases impose a combined approach (cervicotomy and sternotomy). The necessity for more extended approaches like hemi-clamshell is an extreme rarity. Our case report presents the particularities and surgical technique of this approach. **Case Report:** A 60-year-old female patient presents with progressive dyspnea and stridor almost 15 years after surgical removal of the right thyroid lobe. On CT scan a large left thyroid lobe and two mediastinal paratracheal masses with severe tracheal compression and narrowing were exposed. A benign goiter was confirmed by ultrasound guided needle biopsy. The patient was evaluated and planned for left thyroid and mediastinal mass resection in our thoracic surgery clinic. In order to remove all lesions using one approach and a single stage procedure, a cervicotomy extended by a right sided hemi-clamshell incision in the 4th intercostal space was necessary. For better exposure, the right thymic lobe including its superior horn was removed and the right pleural cavity was opened. The intra and postoperative courses were uneventful. **Discussions :** Mediastinal goiters account for approximately 10% of all intrathoracic masses and represent roughly 8%-19% of all thyroidectomy cases. Affected are mainly patients older than 50 years with a higher proportion of 3:1 found in women. Surgical resection of the thyroid gland including the mediastinal component is mandatory, in cases with severe tracheal obstruction even an emergency procedure. The majority of mediastinal goiters (about 95%) can be removed through cervicotomy, but large masses impose extended approaches including partial or total median sternotomy. With accurate surgical technique, the postoperative complications are rare, consisting mainly in injuries of the recurrent nerve, bleeding and tracheomalacia and the prognosis after resection is excellent. **Conclusions:** Extended surgical approaches such as cervicotomy associated with hemi-clamshell represent the best option for large mediastinal bilateral goiters localized both in the anterior and visceral compartment of mediastinum and are optimally addressed in cooperation with thoracic surgeons experienced in mediastinal surgery.

Keywords: Mediastinal Goiter, Mediastinal tumor, Hemi-clamshell incision

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BORN WITH TRANSPOSITION OF GREAT ARTERIES, WHAT NOW?

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Introduction: Transposition of the great arteries (TGA) is a congenital heart defect that affects 4.7 out of 10,000 newborns. The inversion of the great arteries breaks up the normal circulation, separating the pulmonary circuit

from the systemic one. Consequently, oxygen rich blood cannot reach most of the organism and deoxygenated blood is unable to undergo gas exchange without the existence of an anatomic shunt between the two circuits. **Case Report:** We are presenting a female newborn with a prenatal diagnosis of D- transposition of the great arteries (D-TGA). Delivered by caesarean section, she presented difficult adaptation, with initial oxygen saturation of 55% in ambient air and generalised cyanosis, specific for cyanotic heart malformation. Prostaglandin (PGE1) treatment was started, along with transfer to NICU plus a paediatric cardiology consult that confirmed the in utero diagnosis, also showing: a small subpulmonary ventricular septal defect (VSD), a restrictive atrial septal defect (ASD) with bidirectional shunt and a patent ductus arteriosus (PDA) under PGE1 therapy. To aid the stagnant low SO2 saturation, at 4 hours postpartum a balloon atrial septostomy (Rashkind procedure) under echocardiographic guidance was performed to enlarge the ASD. This resulted in increased mixing of blood, thus improving the oxygen delivery in the systemic circulation and maintaining hemodynamic and metabolic stability until 7 days of life, when the surgical correction of the heart lesion could be performed (inversion of the 2 arteries connecting them to their physiologic ventricle, suture of the ASD alongside the VSD and ligature of the PDA). **Discussions :** The Rashkind procedure is the fastest and most efficient way to drastically improve the oxygenation of the D-TGA patient, along with the PDA or without it. This palliation provided enough leeway for the NICU to keep the newborn as stable and prepare her for the surgical and curative treatment: arterial switch operation. **Conclusions:** D-TGA, if treated promptly, as in the case presented, has an optimistic prognostic, with 90% 15 year survivability. Of upmost importance is the preoperative care, focused on providing adequate mixing and supporting the patient until the procedure, for the most suitable results.

Keywords: transposition of great arteries, balloon atrial septostomy, arterial switch operation

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DEEP INFERIOR EPIGASTRIC ARTERY PERFORATOR FLAP (DIEP) - A SIGNIFICANT RECONSTRUCTIVE SURGICAL METHOD FOR POSTMASTECTOMY PATIENTS

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Introduction: Breast cancer is a prevalent health concern affecting millions of women worldwide, with significant physical and psychological impacts. Mastectomy often leaves individuals with altered body image and self-esteem. Reconstructive surgery, particularly the Deep Inferior Epigastric Perforator (DIEP) flap procedure, has emerged as a transformative option. **Case Report:** We present the case of a 52-year-old female patient, admitted in Plastic and Reconstructive Surgery Compartment of Târgu-Mureș with right hemithorax scar post radical mastectomy for breast carcinoma pT2aN2M0. The reconstructive procedure began with the excision of the old scar and creation of a subcutaneous pocket followed by dissection of the right parasternal pectoral muscle, excision of the costal cartilage of the third rib and isolation of the right internal mammary pedicle. An elliptic incision at the inferior abdominal level was made with isolation of the umbilical stump and the elevation of the free DIEP flap on the left paraumbilical perforator. The establishment of end-to-end anastomosis between the deep inferior epigastric artery and the internal mammary artery, as well as connection of the two comitant veins to the internal mammary vein, followed. The flap was incorporated into the hemithorax region by securing it with parasternal, anterior axillary line and inframammary groove anchoring sutures to ensure optimal placement and stability. Furthermore, a paramedian suprafascial dissection of the abdominal wall was performed, extending up to the level of the xiphoid process. The abdominal wall was reinforced using progressive tension sutures, which were placed to evenly distribute tension and minimize the risk of complications such as wound dehiscence. Additionally, a midline umbilicoplasty was performed for reshaping and repositioning the umbilicus to achieve a natural and pleasing contour. **Discussions :** The DIEP flap surgery has become a preferred method for breast reconstruction in post-mastectomy breast cancer patients. This technique offers several advantages, including natural-looking results and reduced risk of complications compared to implants. The postoperative outcomes revealed complete viability of the flap with no local complications. Both recovery and aesthetic results were highly remarkable. Additionally, as part of the procedure, a cartilaginous fragment was banked at the left side of the T incision within the inframammary groove with the intention of subsequent nipple reconstruction. **Conclusions:** In conclusion, DIEP flap surgery stands as a valuable option for breast cancer patients seeking reconstruction post-mastectomy, providing both aesthetic and functional benefits. Continued research and refinement of techniques will further enhance its role in improving patient outcomes and satisfaction.

Keywords: DIEP flap, Breast reconstructive technique, Breast cancer, Internal mammary artery

PERICARDIAL LIPOMA – A RARE BENIGN TUMOR, CASE REPORT

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Introduction: It is exceedingly uncommon for neoplasms to arise directly within the heart, with incidence rates in necropsy series reaching up to 0.4%. The vast majority of these tumors, roughly 75%, are benign and encompass a variety of types such as myxomas, rhabdomyomas, lipomas, fibromas, and teratomas. Among these, lipomas are prevalent on the walls of the right atrium or left ventricle, comprising nearly 10% of all primary cardiac tumors. **Case Report:** We present a case of a 65-year-old male known with monovascular coronary disease, NYHA class II heart failure, and grade II arterial hypertension, with a high cardiovascular risk. The patient was experiencing shortness of breath, tiredness, and fainting. A chest X-ray did not show any immediate changes, however, the echocardiography revealed a clearly defined, 40/60mm oval-shaped tumor mass that has a mixed hypo- and hyperechogenic appearance, with an area of 23mm and a weak Doppler signal, located at the pericardial level, postero-lateral to the right atrium. The tumor was compressing the left atrium, interatrial septum, and the ostium of the superior vena cava, causing turbulence at this level. As a result, the surgical treatment was chosen. **Discussions :** During the intraoperative inspection, a heart with preserved contractility is observed, as well as a 10/8/4 cm round-oval tumor formation in the vicinity of the right atrium, which is encapsulated, well delimited, and has an adherent base to the postero-lateral wall of the right atrium, at the level of the inferior vena cava and the right pulmonary veins, causing their partial collapse. The tumor was excised successfully, with no intraoperative complications. **Conclusions:** Cardiac lipoma is a benign primary tumor of the heart. Nonetheless, clinical symptoms range from slight discomfort to syncope. Overgrowth of a lipoma and infiltration into the heart may signal a more severe clinical presentation and a poor outcome. Accurate diagnosis and detailed evaluation of cardiac lipoma rely heavily on multimodal imaging. In symptomatic patients, radical lipoma excision is the most effective therapeutic option. Conservative treatment may be used for asymptomatic cardiac lipomas, and preventive excision should be investigated.

Keywords: pericardial-lipoma, tumor, benign, surgery

PNEUMOMEDIASTINUM, PNEUMOTHORAX, AND SUBCUTANEOUS EMPHYSEMA: A RARE COMPLICATION OF LAPAROSCOPIC SURGERY

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Introduction: The bladder diverticulum is a rare pathology, which can be both congenital and acquired. This pathology is often associated with classic urinary symptoms, due to stasis at the bladder level or ureter compression with hydroureter and hydronephrosis. **Case Report:** We present the case of a 62-year-old patient, admitted to the Urology Clinic of the Mureș County Clinical Hospital for elective surgical intervention. The preoperative diagnosis is of a compressive right bladder diverticulum on the right ureteral orifice with grade II/III uretero-hydronephrosis. General anesthesia with oro-tracheal intubation is administered, and laparoscopic surgery is performed for the excision of the diverticulum measuring 13*8 cm, double-layer cystorrhaphy is performed, and the right ureter is reimplanted with stent placement. During the surgical intervention, the patient exhibits breathing difficulties which lead to increased airway pressures, as well as an increase in End-Tidal CO2, but with the maintenance of peripheral oxygen saturation (SpO2). Upon changing the patient's position from Trendelenburg to anti-Trendelenburg, generalized subcutaneous emphysema appears. A chest X-ray is performed, revealing a right pneumothorax. Right minimal pleurotomy is performed, followed by a chest CT scan. This reveals a left pneumothorax and pneumomediastinum. The patient returns to the operating room for left minimal pleurotomy. Postoperatively, the patient reports having a prior CT scan, which documents the existence of a minimal diaphragmatic defect. The patient's evolution is favorable. **Discussions :** Careful documentation and obtaining all necessary information before elective surgical intervention is very important to minimize the risk of complications. **Conclusions:** Although laparoscopic surgeries are associated with a minimally invasive risk, due to the accumulation of carbon dioxide and increased peritoneal pressure, complications such as pneumothorax and

subcutaneous emphysema can occur.Funded by the George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Târgu Mureș within the Internal Competition for Scientific Research Grants, contract no. 170/1/09.01.2024

Keywords: bladder diverticulum, pneumothorax, generalized subcutaneous emphysema

OMBREDANNE'S DISEASE: POSTOPERATIVE COMMON PERONEAL NERVE PALSY IN A PATIENT WITH NUMEROUS REINTERVENTIONS

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Introduction: Hereditary multiple exostosis, also known as Ombredanne's Disease is a rare autosomal dominant condition which typically affects prepubescent children. It presents several benign bone excrescences known as osteochondromas, mainly concerning the flat bones and the epiphysis of long bones. One of the most frequent complications is nerve compression caused by the exostoses, potentially leading to permanent nerve damage and paralysis **Case Report:** We bring forward the case of a 14-year-old patient who was admitted to the Paediatric Surgery and Orthopaedics Department in Targu Mures with Hereditary Multiple Osteochondromatosis diagnosed 2 years prior to their current admission, with a medical record of multiple interventions, including excisions of exostoses from the left scapula, distal bilateral femoral epicondyles and fibular heads with complete removal of the proximal end of both fibulas. Histopathological examination revealed multiple osteochondromas without malignant degeneration. The last consultation revealed that reintervention was necessary due to reduced mobility in the lower left limb, with incapacity of executing dorsal flexion of the foot and paraesthesia along its dorsal aspect and lateral side of the leg. EMG investigation revealed bilateral common peroneal nerve axonal neuropathy with a more severe impairment and stagnation on the left side and a slow, but favourable evolution on the right. An external neurolysis procedure was performed by a multidisciplinary team formed with the Plastic Surgery Compartment in order to release the common peroneal nerve. An "S-shaped" incision was made on the lateral proximal half of the leg with excision of the old scar and after proper dissection, extended thick fibrous tissue was revealed, that enveloped the underlying structures causing local compression. Further dissection was needed to ensure complete release on the full length of the common peroneal nerve from the scar tissue formed after multiple surgical interventions. Afterwards, it was transpositioned posteriorly in the popliteal fossa with the wound being closed in anatomical planes and an intradermic suture. **Discussions :** The patient had a favourable postoperative outcome. The wound was clean with no apparent signs of local complications and in just 3 weeks post-procedure, the patient started showing signs of improvement with mobility in the lower left limb. **Conclusions:** Due to the progressive nature of the disease until puberty, patients are prone to undergo multiple surgeries. Regular screening, in anticipation of newly grown exostoses and possible complications, such as nerve compression syndromes, is mandatory in order to prevent impending progression to irreparable paralysis

Keywords: Ombredanne's Disease, Hereditary Multiple Osteochondromas, common peroneal nerve palsy, exostosis

CLINICAL SIGNIFICANCE OF ANATOMICAL VARIATIONS IN THE POPLITEAL ARTERY: INSIGHTS FROM A CASE SERIES

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Introduction: The Popliteal artery is the continuation of the Femoral artery,situated below the adductor tendinous hiatus of Hunter.It is located deep in the popliteal fossa,together with the popliteal vein and tibial nerve.It's main branches are the posterior tibial and fibular artery.At knee level it branches into a patellar plexus.Radiologically it is divided into 3 parts.P1:from the adductor tendinous hiatus of Hunter until the proximal edge of patella,P2 until the intraarticular line and P3 until the origin of the origin of the anterior tibial artery. The popliteal artery presents multiple variations such as:course variations,number and distribution of vessels, diameter and caliber and variations associated with the muscular anatomy.The existence of each and every anatomical variation must be carefully taken into consideration during surgery. **Case Report:** We report a series of 5 cases with significant variations of the popliteal artery, including type II trifurcation, premature bifurcation of the popliteal artery, and lack

of fibular artery or tibio-fibular artery. The aforementioned findings were discovered incidentally on contrast enhanced computer-tomography and digitally subtracted angiography. **Discussions :** Variations are significant because they can alter the approach of the surgical procedure. Surgical considerations such as low or high bifurcation,tortuosity,or abnormal branching patterns might derail the surgical planning, device selection or procedural complications. Diagnostic imaging could be used to reveal these variations to accurately assess vascular anatomy,and subsequently plan appropriate treatment strategies. In interventional procedures, knowledge about these variants are crucial if procedures are performed such as angioplasty or stenting. **Conclusions:** In conclusion, understanding the anatomical variation of the popliteal artery may provide further insights in clinical practice, from a preclinical point of view.

Keywords: Popliteal artery, variations, premature bifurcation, type II trifurcation

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ABDOMINAL SEPTIC SHOCK ASSOCIATED WITH PNEUMORRHACHIS

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Introduction: Pneumorrhachis is a very rare phenomenon characterized by the presence of spinal air in the extradural or intradural space, the pattern of appearance following traumatic/non-traumatic events. **Case Report:** A 67-year-old male was brought into the emergency department in a hypotensive, hyperglycemic state with a GCS of 3 points. He had no history of trauma and no clinical records of comorbidities. Blood work revealed metabolic acidosis, thrombocytopenia, hepatic disfunction and hydroelectrolyte imbalances. Paraclinical investigations, such as cranial CT highlighted diffuse bihemispherical cerebral edema, cervical-thoracic-lumbar pneumorrhachis, and imagistic aspect of frontoparietal intergyral pseudosubarachnoid aneurysm. The main diagnosis was cervical-thoracic-lumbar pneumorrhachis, entero-mesenteric infarction, retroperitoneal necrosis with septic collections extended to the right iliopsoas muscle, abdominal septic shock. Advanced support of vitals function was initiated with mechanical ventilatory support, hydroelectric and acid-base rebalancing, positive inotrope support, vasoactive agents, broad spectrum antibiotics. The patient was taken to the surgery room for an emergency laparotomy. Intraperitoneal liquid was collected by peritoneal puncture, reporting the presence of Escherichia coli cultures. Despite various attempts to maintain the patients' status, he presented several episodes of extreme bradycardia followed by asystole. Unfortunately, the patient was unresponsive to the resuscitation maneuvers and death was declared. **Discussions :** The literature suggests that the most conventionally assumed criteria for pneumorrhachis is represented by traumatic events following pneumocephalus or pneumomediastinum. This case is particular since none of the mentioned symptoms were associated. **Conclusions:** Although the current pathology has a rare incidence - 48 cases confirmed according to a study conducted in 2021 - and it is usually related to trauma, this case is distinct from the others since it does not correspond to any of the preestablished criteria that describes pneumorrhachis.

Keywords: Pneumorrhachis, Entero-mesenteric infarction, Septic shock, E. coli

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LARGE TORSIONED PEDUNCULATED UTERINE LEIOMYOMA

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Introduction: Uterine fibroids are monoclonal tumors of the uterine myometrium, also referred to as uterine leiomyoma. Though deemed benign, they cause significant problems with quality of life for about 25% of women. Despite being common, uterine leiomyomas can only be treated surgically by removal; nonetheless, some research has shown that sex steroid hormones play a significant role in the pathophysiology of these tumors. **Case Report:** This is the case of a 39-years old female patient, previously known with major surgical history due to a right lower limb transverse hemimelia, who presented and altered general status, anemia, and acute abdomen. Following the completion of the patient's objective examination, the presence of a polyfibromatous uterus was noted. A massive torsioned left cornual uterine pedunculated leiomyoma with compressive phenomenon, two 4 cm-diameter posterior leiomyomas, and a large intraperitoneal fluid effusion were found. The patient was admitted in the First Obstetrics and Gynecology Clinic of Targu Mures, for the immediate surgical treatment. The histopathological examination revealed the peritoneal fluid with non-atypical mesothelial cells, two 4 cm leiomyomas and a large 10 cm nodular leiomyoma with hypercellular and hypocellular areas with lympho-

plasmocytic inflammatory infiltrate, and ischemic necrosis. **Discussions :** Our objective is to showcase a specific instance of a big anterior pedunculated uterine leiomyoma that underwent surgical removal due to compression and necrobiosis. **Conclusions:** In this specific instance, surgery is the preferred course of treatment. Particular importance must be given to preserving the fertility of patients who have not completed their family planning, as in this case.

Keywords: leiomyoma, pedunculated, acute abdomen, myomectomy

UNVEILING THE COMPLEXITY OF MYXOMA

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Introduction: Myxomas represent the most common primary cardiac tumors and they usually affect females after the fifth decade of life. Cardiac myxomas are localized preferential to foramen ovale in the left atrium and they present as a single tumor, excepting Carney complex whereas they might be multiple, familial and are diagnosed in younger patients. This tumor grows about 1.8 cm per year but thrombosis and fragmentation causing embolism influence the growth. **Case Report:** A female patient of 17-year-old presents in our clinic in emergency accusing irritative dry cough persistent for a year, tachycardia, unintentional weight loss, anaemia, ankle oedema, fatigue and asthenia. Echocardiography reveals enlarged left atrium with a tumoral mass that occupies the whole space, ventricular contractility is affected. Severe pulmonary hypertension (170 mmHg) is associated with tricuspid and pulmonary regurgitation. During the surgical procedure, the giant tumoral mass from the left atrium is excised and the incision to interatrial septum is repaired with a patch of heterologous pericardium. **Discussions :** After the surgery, the patient presents myocardial contractility disfunction. The day after, ventricular arrhythmia with decreased cerebral blood flow is recognized and the patient is experiencing loss of consciousness whereby 10 minutes she is resuscitated. Echocardiography reveals restrictive diastolic disfunction, depressed contractility with the ejection fraction of 22%. The clinical condition and echocardiographic appearance are gradually improving. At discharge she presents good general condition, ventricular alure 90bpm, hemodynamically stable, sinus rhythm, ejection fraction of 43%. To make sure that patient's disease is not familial as seen in Carney complex, her sister benefits from an echocardiography and the result is negative. **Conclusions:** The myxoma can cause nonspecific symptoms, presenting an insidious onset, and due to its rare occurrences, it is not always easily detected by the clinician, which is why echocardiography is so important.

Keywords: Myxoma, Carney complex, Cardiomegaly

THE UNILATERAL CRANIOTOMY APPROACH FOR OLFACTORY GROOVE MENINGIOMA RESECTION

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Introduction: A meningioma is a type of tumor that grows from the tissues that cover the brain and the spinal cord, called the meninges, and represents a common intracranial tumor. Olfactory groove meningiomas, however, are less frequent, accounting for 4%-18% of all intracranial meningiomas. They are located in the anterior cranial fossa and are highly operable, presenting a good overall prognosis. **Case Report:** A 60 year old female patient presents to the Neurosurgery Department of Cluj-Napoca County Hospital for an episode of loss of consciousness, 2 months prior. Associated, she complains of hyposmia, low vision, memory loss and irritability. MRI examination reveals an extra-axial mass measuring 5/5/2.8 cm, situated medially in the anterior cranial fossa, at the level of the olfactory groove. The scan highly suggests an olfactory groove meningioma. After completing a thorough neurological exam, the patient undergoes surgery. The procedure consists of left fronto-lateral craniotomy, total macroscopic ablation, saline lavage, hemostasis. Afterwards, the frontal sinus breach is closed, the dura mater is sutured and the bone flap is re-positioned in its place. The resected mass is sent for Pathological examination. Postop, the patient is hypertensive and aphasic, but her status improves on the same day. The postop CT reveals minimal haemorrhage and a total mass resection. The patient is discharged on the 9th day postop. **Discussions :** The particularity of the case rises from the unilateral approach for resection (the left fronto-lateral craniotomy). Depending on the size, olfactory groove meningiomas require either a transnasal approach, for the small ones, or

a bifrontal craniotomy, for the larger ones. In this case, given the experience of the surgical team, the total resection of the tumor through a less invasive approach was possible. This procedure offered the advantage of avoiding some surgical risks such as accidentally opening the frontal sinus, damaging the superior sagittal sinus and creating a large cosmetic defect. **Conclusions:** Large olfactory groove meningiomas can be surgically removed through a less invasive technique, the unilateral craniotomy, that reduces the intraoperative risks and improves the cosmetic outcome.

Keywords: olfactory groove meningioma, unilateral craniotomy, hyposmia

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THE COEXISTENCE OF MENINGIOMA AND INTRACRANIAL ANEURYSM - A RARE PHENOMENON

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Introduction: Meningiomas are the most common benign intracranial tumors, deriving from the arachnoid layer of the meninges. They are slow-growing tumors; therefore, they may remain asymptomatic for a long period of time and reach a substantial size. Although meningiomas and intracranial aneurysms are both common pathologies in the neurosurgery field, their association is rare, and surgical treatment may be challenging. **Case Report:** A 45-year-old female patient, known to have sinus tachycardia, is admitted to the Neurosurgery Department of County Emergency Hospital Cluj-Napoca. She complains of vertigo associated with nausea and an episode of syncope, symptoms that have progressively worsened over the last year. Prior to hospitalization, non-contrast CT, angioCT, and MRI scans revealed a left frontal parasagittal extra-axial mass consistent with a meningioma and an aneurysmal dilatation of the left internal carotid artery without any evidence of rupture or dissection. A combined surgery is performed: a left frontolateral craniotomy to access the aneurysm in case of rupture during the intervention, followed by a left parasagittal frontoparietal craniotomy for the removal of the meningioma; ultimately, the aneurysm is clipped. The postoperative angioCT reveals no hemorrhagic collection and complete mass excision. On the first postoperative day, the patient presents a generalized seizure with spontaneous remission. The patient is discharged on the seventh postoperative day without any other complications during hospitalization. **Discussions :** The particularity of this case arises from the order in which these pathologies were approached. Usually, when both masses are present, the aneurysm is clipped first due to the risk of intraoperative rupture and bleeding. Because of the meningioma's mass effect on the adjacent structures and the significant space it occupies in the frontal lobe, which is needed to access the aneurysm, the meningioma was excised first. **Conclusions:** While the resection of a meningioma is generally considered a relatively low-risk procedure, the presence of an intracranial aneurysm can pose therapeutic challenges. This case emphasizes the need for tailored surgical approaches, with the meningioma excision prioritized due to its impact on accessing the aneurysm.

Keywords: meningioma, internal carotid aneurysm, surgery

POST CHEMOTHERAPY LYMPH NODE DISSECTION VIA 3D LAPAROSCOPY - A SAFER AND MORE RELIABLE OPTION IN UROLOGY

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Introduction: Testicular cancer represents a specific oncological pathology in male patients between 15-35 years old. A large percentage of such cancers diagnosed post puberty are derived from germinal cells. While seminomas are often diagnosed early, non-seminomatous germinal cell tumours are discovered in advanced stages after spreading to retroperitoneal lymph nodes. Traditional laparoscopy has been widely used for difficult lymph node dissection, but lately 3d laparoscopy is emerging as a more precise choice. 3D laparoscopy is associated with improved depth of perception and navigation witch ultimately results in a more precise dissection in difficult areas translated in better clinical outcomes for patients. **Case Report:** A 34-year old patient that underwent right inguinal orchiectomy for mixt non-seminomatous germ cell carcinoma, after 3 rounds of chemotherapy, presented with high alphaphetoprotein levels and a CT scan revealing 4 retroperitoneal enlarged lymph nodes ranging from 37 to 51mm. The patient underwent laparoscopic retroperitoneal lymph node dissection via a transperitoneal 3D

laparoscopy using two 5mm and two 10mm ports. All four masses were successfully removed within a reduced operating time of 170 minutes. **Discussions :** Case complexity was highlighted by the strong adhesion to the large retroperitoneal vessels and the presence of a 51mm formation encasing the right gonadal vessels along with a 31m formation in close proximity to the superior mesenteric artery. Intraoperative blood loss was negligible and no incidents were reported during the surgery with both drainage tubes being suppressed the following two days. Histopathological analysis on the dissected lymph nodes confirmed the same histological subtype as the initial diagnosis post orchiectomy. The fast recovery period enabled the patient to be discharged in the 7th post-operative day, favouring a fast social reintegration. **Conclusions:** While less researched and used, 3D laparoscopy represents a very effective tool in achieving better clinical outcomes for patients, from reduced surgical complications and hospital stay to aiding in fast social reintegration and recovery. The depth perception and a better offering of details weights a lot in performing such difficult surgeries. Having a steep learning curve, minimally invasive retroperitoneal lymph node dissection is recommended for experienced personnel working in high volume centers.

Keywords: urology, testicular cancer, laparoscopy

LAPAROSCOPIC REPAIR OF BILATERAL INGUINAL HERNIA

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Introduction: Inguinal hernia repairs are one of the most common general surgical operations performed in the world. There are many treatment options for patients with inguinal hernias including watchful waiting, open primary repair, open tension-free repairs with the use of mesh, and laparoscopic repairs. **Case Report:** We admit a patient with a right inguinal hernia. During laparoscopy, a left direct inguinal hernia was diagnosed, prompting the performance of a bilateral Transabdominal Preperitoneal (TAPP) repair. Results: The surgical procedure, including bilateral TAPP repair, was completed within 100min. Two polypropylene meshes were utilized, measuring 14x9 cm on the right side and 12x8 cm on the left side. **Discussions :** The bilateral TAPP repair, utilizing polypropylene meshes was successfully completed in 100min. The patient was discharged on the second postoperative day, and notably, no early or late complications were observed during the 14-day and 3-month follow-up assessments. **Conclusions:** In this case TAPP repair, demonstrates the therapeutic advantages of laparoscopic surgery for inguinal hernias. Early identification of contralateral hernias during the procedure allows for simultaneous repair, minimizing the need for additional interventions and potentially reducing overall morbidity. Additionally, the prompt discharge of the patient on the second postoperative day without complications underscores the safety and effectiveness of laparoscopic hernia repair.

Keywords: inguinnal hernia, laparoscopic, Transabdominal Preperitoneal (TAPP)

RIGHT INGUINAL SARCOMA PRESENT IN A PATIENT WITH RIGHT INGUINAL HERNIA

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Introduction: Sarcoma is a malignant tumor of connective tissue. Frequently involved structures include connective, bone, cartilaginous, muscular, and adipose tissues. Sarcoma can occur both in the trunk and in the limbs, head, or neck **Case Report:** In this paper, we present the case of a 70-year-old man who was admitted through scheduling with the diagnosis of a right inguinal tumor. The patient reports the onset of a tumoral formation in the right inguinal region 4 months ago. It has grown to 25x20 cm, becoming painful. From the patient's pathological personal history, we note the presence of essential arterial hypertension, bilateral hydrostatic varices, and prostate adenoma. The physical examination reveals a tumoral formation in the right inguinal region, slightly hyperemic, oval, hard, well-defined, fixed to superficial and deep planes, slightly sensitive. Computed tomography examination revealed a tumoral formation in the right inguinal region with a double component - parenchymal, inhomogeneous iodophilic, centrally necrotic, with dimensions of 87/105/130 mm (AP/LL/CC), respectively poliseptate adipose structure, with discreet own wall, microcalcifications and included vascular structures, with dimensions of 102/62/125 mm (AP/LL/CC), several superficial inguinal lymph nodes with maximum dimensions of 13/9 mm. The surgical intervention consisted of elliptical excision of the tumoral formation from cranial to caudal and from medial to lateral. As the tumoral formation penetrated the external oblique muscle aponeurosis and the

inguinal ligament, partial excision of these was also necessary. After the removal of the tumoral formation, an external oblique inguinal hernia sac was also identified, which is why inguinal hernia repair and abdominal wall plasty were performed, retrofunicular procedure. The intervention concluded with mobilization of the cutaneous-subcutaneous flaps, their suture, and subcutaneous drainage. The postoperative evolution was favorable, and the patient was discharged on the 5th postoperative day. Histopathological examination revealed a monophasic synovial sarcoma, grade 3 FNCLCC. On section, the tumor presents a multinodular aspect, with areas of necrosis, approximately 40% of the tumor volume. **Discussions :** Sarcomas are mesenchymal tumors that can be divided into soft tissue sarcomas and primary bone sarcomas, depending on the tumor type, the therapeutic approach being different. Important prognostic factors are grade, size, and location of the primary tumor. **Conclusions:** Treatment should always address associated lesions, such as the inguinal hernia in the presented case. Surgical treatment with or without radiotherapy remains the first-line treatment for localized soft tissue sarcomas, while chemotherapy may be indicated in cases with high risk.

Keywords: Sarcomas, Inguinal hernia, Treatment

GIANT RIGHT OVARIAN FIBROID WITH COMPRESSIVE PHENOMENA, ASSOCIATED WITH UTERINE LEIOMYOMA, IN A PATIENT WITH RECURRENT BASAL CELL CARCINOMA OF THE FACE, OPERATED ON

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Introduction: The ovarian fibroma is the most common benign stromal ovarian tumor. It is associated with ascites in 40% of cases and, in a small percentage, with hydrothorax. The symptoms mimic a neoplastic condition, with imaging examinations being very useful in diagnosis. **Case Report:** In this paper, we present the case of a 66-year-old patient who was admitted by appointment on October 25, 2023, with a diagnosis of an abdominal tumor, likely of right adnexal origin. The patient reports the onset of lower abdominal pain approximately 4 months ago, associated with abdominal bloating. The symptoms worsened, with the patient noticing a progressive increase in the size of her abdomen. From the patient's medical history, we note: hydrostatic varices of the lower limbs, essential hypertension, NYHA II congestive heart failure, obesity, hepatic steatosis, gallbladder lithiasis, basal cell carcinoma of the face excised in 2020, recurrent and reoperated on October 11, 2023. The physical examination reveals a distended abdomen, with palpation revealing an indistinctly delimited tumor formation, approximately 40x30 cm in size, firm, slightly sensitive, occupying almost the entire abdominal area. Computed tomography reveals a space-occupying process, relatively well-defined, originating from the right adnexa, with a mixed component (tissue and fluid), measuring 18.2/29/22.6 cm (AP/LL/CC). The described formation is located in the mesogastrium, hypogastrium, flanks, and pelvic area, causing a mass effect on the intestinal loops, ascending colon, and sigmoid colon. Significant abdominal-pelvic fluid accumulation is noted, along with a 3.6 cm umbilical hernia, marked infiltration of subcutaneous tissue. On October 26, 2023, surgical intervention was performed, including total hysterectomy with bilateral salpingo-oophorectomy, greater omentum resection, cholecystectomy, omphalectomy, Douglas and subhepatic drainage, abdominal wall repair, and skin closure, for the intraoperative diagnosis of right adnexal tumor adherent to the small intestine loops and greater omentum, ascites, chronic calculous cholecystitis, adhesive syndrome. The postoperative course was favorable, and the patient was discharged on the 7th postoperative day. Histopathological examination revealed right ovarian fibroma, uterine leiomyoma without atypia, and chronic cholecystitis. **Discussions :** The association of ovarian fibroma, ascites, and hydrothorax is termed Demons-Meigs syndrome. The association of ovarian fibroma solely with hydrothorax or solely with ascites is called pseudo-Meigs syndrome. Ovarian fibroma accounts for 2-5% of surgically removed ovarian tumors. The preferred treatment is surgical intervention. **Conclusions:** The surgical treatment of the patient, who underwent surgery for basal cell carcinoma of the face 15 days ago, resulted in the resolution of symptoms.

Keywords: Giant ovarian fibroma, Ascites, Treatment

GIANT HIATAL HERNIA- A CASE REPORT

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Introduction: The hiatal hernia is considered one of the most common lesions of the diaphragm. The symptomatology consists of: epigastric pain, angina-like pain, dysphagia, heartburn, gaseous eructation or any combination of these symptoms. Giant hernias, constituting 5%-10% of all hiatal hernias, are characterized by the protrusion of over one-third of the stomach into the thoracic cavity. **Case Report:** We present a case of a 74-year-old woman who presented with the following symptoms : epigastric pain, dysphagia and respiratory disorders . She was subsequently admitted to the Clinical Emergency Hospital Targu Mures' Surgical Department 1. The patient's diagnosis was concluded to be a giant axial and rolling hiatal hernia, adherential syndrome, chronic cholecystitis, biliary sludge with cardiovascular and pulmonary comorbidities, for which exploratory laparoscopy with adhesiolysis, laparoscopic repair of the hiatal hernia, posterior cruroplasty, Nissen fundoplication, retrograde laparoscopic cholecystectomy, and a subhepatic drainage were performed. The postoperative evolution was favorable and the patient was discharged after three days. **Discussions :** This case presentation aims to present one of the three different types of hiatal hernias: type 4 and to accentuate the importance of a well-chosen treatment with great care to avoid any possible complications associated with this pathology. **Conclusions:** The treatment of choice for these cases should be the laparoscopic surgery considering the reduced recovery period and the minimized risk of intra- and post- operative complications even in the case of giant hiatal hernia.

Keywords: Giant Hiatal Hernia, Laparoscopy Nissen, Cruroplasty

A RARE CASE OF RUPTURED VOLUMINOUS MALIGNANT OVARIAN CYST – CASE REPORT

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Introduction: One of the most prevalent gynecological diseases is the ovarian cyst. Abdominal pain is often experienced by patients with ruptured ovarian cysts. The three basic problems that present to the emergency gynecology department □□□□□□□□□□□ torsion, and rupture □□□□ referred to as "ovarian cyst accidents.'**Case Report:** This is the case of a 55-year-old woman who, after lifting a large weight, suddenly developed pelvic-abdominal pain and went to the emergency room. She was subsequently admitted on January 7th to the Clinical Emergency Hospital Targu Mures' Gynecology Department 1. After appropriate preoperative preparation, surgical intervention is performed and the following diagnosis is made : large hemorrhagic ruptured left ovarian cyst, massive hemoperitoneum. The histological analysis revealed no pathological alterations in the right adnexa, omentum, or appendix, but a left ovarian tumor with adult-type granulosa cells (code: 8620/3, tumor stage: IC2). The ovarian tumor's remarkable diameter and the occurrence of capsular rupture were linked to a significant risk of metastasis and recurrence. **Discussions :** This case presentation aims to emphasize the significance of appropriately managed treatment and the need to be extremely careful when making a differential diagnosis because the symptoms of an appendix torsion, an ectopic pregnancy, and hemorrhage from a ruptured cyst are all similar. **Conclusions:** The treatment of choice for these cases should be Type B (Querler-Morrow) hysterectomy, with bilateral salpingo-oophorectomy via laparotomy after the evacuation of the hemoperitoneum, accompanied by careful multidisciplinary monitoring of the patient.

Keywords: Ruptured ovarian cysts, salpingo-oophorectomy, malign, laparotomy

"PRECISION IN UNCERTAINTY: MINIMALLY INVASIVE MANAGEMENT OF OVARIAN TUMORS WITH INDETERMINATE BEHAVIOR – A CASE REPORT".

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Introduction: Ovarian tumors with uncertain or indeterminate behavior pose significant challenges in

gynecological practice. Minimally invasive surgery (MIS) offers a path to balance effective treatment and preservation of ovarian function. This case report illustrates the precise surgical management of an indeterminate ovarian tumor, showcasing the integration of careful diagnostic evaluation and the strategic use of laparoscopic techniques. **Case Report:** A 35-year-old female presented with a unilocular right ovarian cyst and concurrent subserosal and intramural fibroid nodules, contributing to secondary infertility. A laparoscopic approach was employed to excise the pathologic mass while aiming to maintain the patient's ovarian function. The procedure involved the removal of a unilocular ovarian cyst, measured to be 7-8 cm, and the resection of uterine fibroids, with the largest measuring approximately 2 cm. The technical finesse of the surgery ensured minimal tissue disruption and optimized post-operative recovery. **Discussions :** This discussion focuses on the decision-making process in cases with indeterminate ovarian tumors, particularly when fertility preservation is a priority - where there might be the case. It examines the role of MIS in providing high-quality patient care, including the assessment of risks and benefits, technical considerations, and potential outcomes. Moreover, the laparoscopic approach also allowed for real-time visual assessment and decision-making, which is crucial when dealing with indeterminate masses that could range from benign to malignant potential. **Conclusions:** The laparoscopic management of ovarian tumors with indeterminate behavior can be highly successful when executed with precision. The case underlines the importance of individualized patient care plans and highlights MIS as a cornerstone for managing complex gynecological conditions. The favorable outcome in this case reaffirms the role of laparoscopy as a safe, effective, and patient-centered approach in gynecological oncology.

Keywords: minimally invasive surgery, laparoscopy, ovarian tumor, indeterminate behavior

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LAPAROSCOPIC PYELOPLASTY-A MODERN CURE FOR URETEROPELVIC JUNCTION OBSTRUCTION

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Introduction: The obstruction of the ureteropelvic junction is known to be one of the many causes of recurrent hydronephrosis, being also associated with kidney stones. The modern technique of transperitoneal laparoscopic Hynes Anderson pyeloplasty represents an outstanding alternative to the conventional open pyeloplasty, due to the ability to perform a complex reconstruction even if the aberrant crossing vessels are the main cause, which is the case for the most adults who suffer from the obstruction of the ureteropelvic junction. **Case Report:** A 28-year-old male patient was admitted in the Urology clinic of Targu Mures for recurrent left pain in the lumbar region in the last 6 months. His medical history revealed that he underwent a left pyeloplasty in 2014 and several left flexible ureteroscopy. From his ultrasound and computer tomography, the identified cause of pain was an ureteropelvic junction obstruction which led to a pelvic stone of 3x2cm, causing 3rd degree hydronephrosis. Given his normal vital signs and physical examination, the surgery of choice was a transperitoneal laparoscopic dismembered Hynes Anderson pyeloplasty combined with a stone extraction and the insertion of a double "J" ureteral catheter. Through a three 1 cm incision made in the abdomen, the ureteropelvic junction obstruction was removed, while carefully preserving the crossing vessels. The next step was reattaching the ureter to the renal pelvis, creating a proper way to drain the urine. A double "J" ureteral stent was left inside at the end of the procedure to strengthen the pyeloplasty and decompress the kidney, and a lumbar drain was placed. **Discussions :** After a 210 minutes operation, the postoperative evolution was favorable, the patient presenting no symptoms of infection or inflammation. He was discharged four days later after the lumbar drain was removed. At the four weeks mark, the ureteral stent was pulled out and the patient showed no signs of lumbar pain. **Conclusions:** Based on the progress seen in this case, the laparoscopic pyeloplasty for ureteropelvic junction obstruction should be taken into account, due to the short recovery period, lower risk of complications, and its effectiveness even in cases where it is associated with kidney stones or aberrant crossing vessels.

Keywords: laparoscopic Hynes-Anderson, aberrant vessels, ureteropelvic junction, kidney stones

DEFYING THE ODDS: EMERGENCY CERCLAGE IN AN IVF PREGNANCY – A CASE REPORT

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Introduction: Cervico-isthmic insufficiency represents the inability of the cervix to retain the fetus in the absence of uterine contractions. It occurs due to a structural or a functional defect and in most cases due to an infection of the genital tract. **Case Report:** We are presenting the case of a 32-year-old patient with a 23-week-old in vitro fertilization (IVF) pregnancy, who after a routine check-up on the 23rd of February 2024 was urgently admitted experiencing nausea and headaches. The clinical examination revealed unusual secretions, a shortened cervix and the presence of the transcervical extravasation of the amniotic sac of approximately 3-4 cm. The lab work revealed an elevated CRP, leukocytosis, lymphocytosis, high monocyte and neutrophils count and low urea levels. Taken everything into consideration, the diagnosis of chorioamnionitis with cervico-isthmic insufficiency was established. The patient was rushed into surgery where an emergency McDonald cervical cerclage was performed. Following the intervention, the cervix was closed with good haemostasis and the Zeiwang test was negative. On the 25th of February the ultrasound examination revealed a single-fetal pregnancy with a live fetus, fetal cardiac activity of 144bpm and active fetal movements present. On the 27th, the prophylaxis of "hyaline membrane disease" was carried out with two doses of dexamethasonum. On the 29th, the fetus was in cranial presentation. On the 5th of March the discharge of the patient was possible in good condition without vaginal bleeding or loss of amniotic fluid and the absence of painful contractions. **Discussions :** Due to the borderline viability of the pregnancy, the decision to perform an emergency cerclage was life-saving for the fetus and optimal for the mother's psychological well-being, especially considering that she undergone eight failed IVF attempts. **Conclusions:** When making a decision, it's important not to be afraid of taking risks, especially when it is for the benefit of the patients. In this case, the risk was worth it. As of the 7th of April, the pregnancy reached 30 gestational weeks evolving without any complications, significantly increasing the fetus's chances of survival in the event of labor.

Keywords: Pregnancy, Cerclage, Cervical, Chorioamnionitis

SURGICAL APPROACH IN MATURE CATARACT ON ENOPHTALMOS

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Introduction: Enophthalmos is the posterior displacement of the entire eyeball into the orbital cavity. It has a variety of causes and can be classified as primary (congenital) or secondary (post-traumatic). The aim of this paper is to highlight the difficulties of cataract surgery in enophthalmic eyes. **Case Report:** We present the case of an 82-year-old male patient who came to our clinic for a routine checkup. At the ophthalmological examination BCVA RE-0.3, LE- c.f. IOP (intraocular pressure) RE=11 mmHg, LE= 9 mmHg. The anterior segment for left eye (LE) shows a dense cataract and for the right eye multiple opacities of the lens. Ocular movements were normal in both eyes. The final diagnosis was mature cataract for the left eye and cataract for the right eye; surgical treatment for both eyes was decided in order to improve visual acuity. Unfortunately, due to left eye enophthalmos and dense cataract, optical coherence tomography and specular microscopy could not be performed. Biometry was tried on two different machines. The classic surgical approach was decided due to enophthalmos and mature cataract, with extracapsular lens extraction and artificial intraocular lens implantation, being performed without complications. For the right eye phacoemulsification and artificial intraocular lens implantation was performed without complications, two weeks apart. On the post-operator check-up, BCVA of the left eye was 0.3 and for right eye 0.6, without edema, ocular or periocular pain or hyperemia. **Discussions :** Although cataract is one of the most common surgeries performed worldwide, being a fast surgery there are many pathologies associated with a patient that increase the difficulty of the surgical approach. **Conclusions:** The modern procedure of cataract surgery - phacoemulsification and lens implantation- could not be performed on the left eye because of the location of the eyeball in the orbital cavity and mature cataract, resulting in the surgery being longer, the surgical technique more difficult and the healing process taking more time.

Keywords: enophthalmos, cataract, classic surgery

FROM COMPLICATION TO TREATMENT : THE ROLE OF Z-PLASTY IN THE PENILE REGION AFTER SELF-INJECTION

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Introduction: Self injection of vaseline or other foreign materials, like mineral oil or paraffin, into the penis is done for the purpose of larger sexual organ. It can lead to a severe complications such as, infection, inflammation, scarring, erectile dysfunction, deformities, and permanent damage to erectile tissue. Such complications can significantly impair sexual function and quality of life. **Case Report:** 40-year-old male with a history of penile self-injection of Vaseline over a period of five months. Initial presentation to the urology department where they found foreign mass within penile region. They removed the vaseline along with the penile concomitant with penile degloving. As a consequence of the surgical intervention, the anatomical configuration of the patient's penis underwent alterations, resulting in its burying within the scrotal sac. Subsequently, seeking improvements in functionality, aesthetics, and skin elevation around the penis, the patient underwent reconstructive surgery at the plastic surgery department. During the procedure, foreign injected objects were discovered within the subcutaneous layers, which required partial removal due to adherence or proximity to the scrotum. Utilizing the Z-plasty technique, parallel incisions were done for the purpose of elongation and decreasing the tension. The skin was mobilized and multiple cutaneous triangular flaps were repositioned. Furthermore, the excess redundant skin was excised. Scrotal skin flap was used to cover the penile shaft. It is necessary the complete and meticulous lateral dissection of the flaps at a good depth maintaining the skin vascularity. Simple closure of the skin flaps was done after point-to-point haemostasis. This procedure resulted in an augmentation of approximately 6cm in length and improved the contour of the region. **Discussions :** Indications for penis augmentation are the improvement of self confidance as it is seen in our case, as well. The early stage intervention and the extraction of foreign objects is recommended to avoid the possibility of skin necrosis. **Conclusions:** Our case report shows the importance of reconstructive surgery and the use of Z-plasty technique. The presented intervention results in a longer and repositioned scar, avoiding a deforming skin contraction. We successfully corrected functional and aesthetic concerns.

Keywords: Z-Plasty, Self-injection, Foreign materials

MANAGEMENT OF CAPITELLAR FRACTURE: A CASE REPORT AND REVIEW

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Introduction: Capitellar fractures, although uncommon, present unique challenges in orthopedic practice due to their complex anatomy and potential impact on elbow stability. Accounting for only about 1% of all elbow fractures and 6% of distal humerus fractures, these injuries often result from high-energy trauma such as falls or direct blows to the elbow. Despite their rarity, capitellar fractures demand careful consideration and management to optimize patient outcomes. **Case Report:** We present a case of a 57-year-old female patient, with a Type I capitellar fracture following a fall on an outstretched arm, highlighting the clinical presentation, radiographic findings, and surgical management. The patient presented with symptoms of elbow pain, deformity, and swelling, along with wrist pain. Physical examination revealed ecchymosis, diffuse tenderness, and limited range of motion with instability. Importantly, the patient's diagnosis is further complicated by the onset of osteoporosis, which arose post-menopause due to hormonal imbalances, thereby potentially influencing healing. Lateral radiographs confirmed the diagnosis of a displaced Type I capitellar fracture, and operative treatment was performed. The surgical technique employed is open reduction with internal fixation using two Herbert screws. This approach is considered appropriate as the screws are implanted within the bone, thereby avoiding interference with circulation. **Discussions :** The radiocapitellar articulation plays a crucial role in the longitudinal and valgus stability of the elbow. If the medial structures are compromised, disruption of this articulation can result in instability in the coronal plane. Surgical management, particularly in displaced fractures, aims to restore anatomical alignment and stability. Although the majority of patients attain a functional range of motion following surgery, some may continue to

experience residual stiffness. However, surgical outcomes are generally favorable, with satisfactory restoration of elbow function documented in research. **Conclusions:** Capitellar fractures represent a rare but significant subgroup of elbow injuries, requiring prompt diagnosis and appropriate management. Surgical intervention, especially in displaced fractures, utilizing techniques such as internal fixation with headless screws, can effectively restore elbow stability and function. Long-term outcomes are favorable, with most patients experiencing improved range of motion, although residual stiffness may occur.

Keywords: Capitellar fracture, elbow injury, radiocapitellar articulation, surgical management

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MANAGEMENT OF FEMORAL NECK PSEUDARTHROSIS: A CASE REPORT ON REVISION HIP ARTHROPLASTY STEM USED AFTER A LONG GAMMA NAIL NON-UNION

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Introduction: Femoral neck fractures are among the most challenging orthopedic injuries, particularly in the context of polytrauma. The management of such fractures is complex and requires a nuanced understanding of both surgical techniques and the biological processes underpinning bone healing. Complications such as pseudarthrosis (nonunion) pose significant challenges, impacting patient outcomes and quality of life. **Case Report:** We detail the case of a 56-year-old male patient, a car passenger who suffered a dashboard car trauma resulting in Garden IV femoral neck fracture and a femoral mid-diaphyseal fracture type AO32C. The initial surgical intervention involved a long gamma nail fixation. However, 7 months post-surgery, the patient was diagnosed with pseudarthrosis of the femoral neck and diaphysis. Subsequent interventions aimed at curing the pseudoarthrosis and healing the femoral diaphyseal fracture did not yield the expected results. Two years post-initial surgery, a decision was made to remove the long gamma nail and perform a revision hip arthroplasty using a Revitan revision system stem. **Discussions :** Functional outcomes and pain levels were quantitatively assessed using the Visual Analog Scale (VAS), Harris Hip Score (HHS), Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), and the Short Form (36) Health Survey (SF36) before the revision surgery and at a 6-month follow-up. Preoperative scores were reported as VAS: 6.7, HHS: 76.4, WOMAC: 73.5, and SF36: 77.2. Six months following the revision hip arthroplasty, significant improvements were noted with scores of VAS: 8.9, HHS: 89.1, WOMAC: 77.4, and SF36: 81.3. **Conclusions:** This case underscores the challenges in managing complicated femoral fractures leading to pseudarthrosis post-gamma nail fixation. The transition to a Revitan revision system stem arthroplasty emerged as a decisive intervention after traditional fracture healing methods failed.

Keywords: Pseudarthrosis, Revitan stem, Gamma Nail Complications

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CHALLENGES IN DISTAL HUMERUS FRACTURE SURGERY

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Introduction: When it comes to the bones the most frequent lesions are the fractures, but the challenges in the orthopedic practice are not about bone repair, rather these challenges revolve around preserving the surrounding important anatomical structures, in order to have the best outcome for the patient's recovery. **Case Report:** We present a case of a 69-year old female patient, presented at the emergency department, conscious, with fall trauma from the same level, pain localised in the upper left limb, low range of mobility and with pathological history of high blood pressure, diabetes. Laboratory result: elevated number of leukocytes, low average level of Hb, increased number of neutrophils. The X-ray reveals the diagnosis - distal humerus fracture. The patient is admitted for the surgical treatment - distal humerus plate surgery - procedure that involves first repositioning the bone fragments into the anatomical position and held them in place with plates and securing them with screws, from the outside part of the plates. **Discussions :** As mentioned the most challenging part of the surgery are immediate complication - to preserve the surrounding anatomical structures, the ulnar nerve and the radial nerve, structures that could be damaged by the fracture itself or during the collecting and repositioning part of the surgery; and the long time complications - joint stiffness, pain due the medical device, pseudoarthrosis, delayed consolidation. The procedure involves a long period of recovery, 3 weeks of plaster cast, hinged orthosis for progressive extension. **Conclusions:** In the surgical displaced intervention, osteosynthesis is an important factor for recovery. The method can restore the bone and the patient can regain the joint mobility. Even if it is a long journey, long term

outcomes are good for the patients.

Keywords: distal humerus fracture, plates, screws, orthopedic surgery

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OCHRONOTIC ARTHROPATHY- A CASE REPORT

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Introduction: Alcaptonuria is a highly rare autosomal recessive metabolic illness with an aproximately 1:1.000.000 birth frequency, causing articular buildup of grey-blue pigment known as ochronotic arthropathy (OA). The etiology is represented by a mutation of the homogentisate gene 1,2-dioxygenase (HGD), deficiency that leads to accumulation of homogenetic acid in the connective tissue and blood. **Case Report:** We present the case of a 76-year-old patient, previously diagnosed with type IV Lobstein Osteogenesis Imperfecta, gonarthrosis, spondiloarthritis, who is admitted in 2021 in the Orthopaedic Clinic with complaints of right hip pain sensitivity, functional impairment with limited movements. Following preoperative care for total hip replacement surgery, right hip arthrotomy is initiated, during which a black friable intraarticular matter is distinguished. Hence, arthroplasty is delayed until a morphopatological examination is conducted. The examined compact bone tissue revealed microscopic area of residual cartilage with brown pigment. Upon examination, the synovial tissue presented pigmented hyaline cartilage lesions, inflammatory tissue, as well as foreign-body giant cells, thus establishing the diagnosis of ochronosis. Ultimately, the patient underwent total hip arthroplasty, with no intraoperatory complications. **Discussions :** While there is currently no cure or prophylactic treatment for alcaptonuria, first line of treatment involves administration of HPPD inhibitors, such as Nitisinone, which is known to be effective in decreasing homogensic acid by up to 95%, along with vitamin C supplements for their antioxidant properties. In cases of OA, patients typically seek medical attention after joint involvement, as symptoms often manifest after a latency period. Surgical intervention such as knee, hip or shoulder arthroplasty may thus be necessary. According to current studies, progression of OA cannot be effectively stopped, but rather managed through the modulation of Tyrosine and Phenylalanine metabolism. Consistently, progression of OA leads to degenerative arthritis, precipitating heightened discomfort and diminishing life quality. Ultimately, all instances of OA necessitate treatment via total hip arthroplasty or total knee arthroplasty, with outcomes akin to those observed in classical osteoarthritis interventions. **Conclusions:** Due to symptomatic resemblance between ochronotic and classical degenerative arthropathy, OA should be considered prior to surgical treatment, despite its rarity, based on the family history and clinical findings, which will ensure a better surgical and therapeutical management of the patient. Despite its unusual character, with merely a few reports in medical literature, total arthroplasty is still considered to be the best course of action for patients associating ochronotic degradation of the joint.

Keywords: Alkaptonuria, Ochronosis, Arthroplasty, Hip

POSTER - NON - SURGICAL

ATYPICAL KAWASAKI DISEASE IN A PEDIATRIC PATIENT FOLLOWING COVID-19 EXPOSURE

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Introduction: Atypical Kawasaki Disease (KD), also known as incomplete Kawasaki, is a systemic vasculitis primarily affecting the pediatric population. It is characterized by a prolonged unexplained fever lasting five or more days, with fewer than four classical KD symptoms, such as conjunctival injection, oral mucosal changes, cervical lymphadenopathy, polymorphous rash, and extremity changes. Atypical KD often presents with laboratory indicators of systemic inflammation and may show abnormalities in the coronary arteries on echocardiography. **Case Report:** The aim of this paper was to provide a comprehensive description of a 34-month-old male patient who developed atypical KD following exposure to COVID-19. The case highlighted clinical presentation, diagnostic challenges, management strategies, and outcomes. Despite being fully vaccinated and having no significant medical history, the patient experienced persistent fevers that did not improve with antipyretic treatment. Laboratory tests revealed elevated markers of inflammation, including leukocytosis, CRP, ESR, Ferritin, and GOT. Cardiological evaluation was required due to coronary artery dilation observed on echocardiogram. Early intervention was crucial to prevent serious cardiac complications in KD. **Discussions :** The case report brought attention to the difficulties involved in diagnosing atypical KD within the context of post-viral multisystem inflammatory syndromes, specifically Multisystem Inflammatory Syndrome in Children (MIS-C), which can occur after exposure to COVID-19. The patient's clinical presentation of unexplained fever, systemic symptoms, and laboratory markers of systemic inflammation raised suspicion for incomplete KD. Echocardiography played a crucial role in confirming the diagnosis by demonstrating coronary artery dilation, a characteristic finding in KD. The absence of classical symptoms in atypical KD lead to challenges in distinguishing it from other post-viral inflammatory syndromes. In this case, the patient's exposure to COVID-19, along with the temporal relationship between the viral infection and symptom development, raised suspicion for atypical Kawasaki Disease. Elevated inflammatory markers and echocardiographic findings supported the diagnosis. Early intervention with IVIG treatment resulted in positive outcomes and reduced long-term cardiac complications. The association between COVID-19 and Kawasaki-like syndromes, such as MIS-C, was increasingly acknowledged. Healthcare providers should consider Kawasaki disease in pediatric patients with fever and systemic inflammation after COVID-19 exposure. **Conclusions:** This case emphasized the challenges in diagnosing atypical KD in post-viral inflammatory syndromes, highlighted the importance of early recognition and intervention to prevent cardiac complications, and underscored the role of echocardiography in confirming the diagnosis and guiding management.

Keywords: Atypical Kawasaki Disease, Pediatric Patient, COVID-19

WHAT IS HIDDEN BEHIND AN “OCCULT BLEEDING”? – A SMALL BOWEL NEUROENDOCRINE TUMOR CASE REPORT

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Introduction: Neuroendocrine tumors of the intestine have shown an increase in incidence in recent decades. NETs originate from the Kulchitsky cells, which are neuroendocrine cells located in the Lieberkühn crypts of the intestinal mucosa. The malignant behavior is directly proportional to the size of the tumor. This condition doesn't have specific symptoms, leading to a delay in diagnosis. The small intestine represents the second most common location for neuroendocrine tumors of the gastrointestinal tract, after the appendix. **Case Report:** We present the case of a 48 years old female who was admitted to the gastroenterology department for investigations following rectal bleeding and a positive occult blood test. The patient has Helicobacter pylori associated gastritis, for which she is undergoing antibiotic treatment, as well as non-alcoholic fatty liver disease, hypercholesterolemia and mild hypertriglyceridemia. Physical examination does not detect any pathological changes. Labor analysis expose slightly elevated fibrinogen levels(432 mg/dl), without anemic syndrome. Colonoscopy reveals a polypoid submucosal mass(2-3cm), highly vascularized, located in the terminal ileum, 3 cm from the ileocecal valve. Contrast CT shows the tumor, the tomographic aspect suggesting a possible GIST (Gastrointestinal Stromal

Tumor) or NET (Neuroendocrine Tumor), and several mesenteric and retroperitoneal lymphadenopathies (5-10mm). Biopsy: mucosal proliferation of cells with insular arrangement, with luminal outlining, positive for chromogranin and synaptophysin, focally positive PanCK (AE1/AE3), leading to the diagnostic of low-grade neuroendocrine tumor. The patient underwent surgical treatment consisting of ileal resection and right hemicolectomy followed by ileotransversal anastomosis. **Discussions :** Endoscopic biopsy of the tumor was attempted, and it triggered a self-limiting laminar hemorrhage. Considering the high rate of malignancy in submucosal tumors and its size(>2 cm), surgical consultation is recommended for tumor resection. **Conclusions:** The smallest sign can reveal a significant pathology. In the case of the patient, a simple occult bleeding (even in the absence of an anemic syndrome) led to the diagnosis of a pathology that, if left untreated, could have lethal potential. With the appropriate treatment, the patient has a favorable prognosis and a high life expectancy.

Keywords: neuroendocrine tumor, occult bleeding, chromogranin, synaptophysin

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DIAGNOSTIC AND MANAGEMENT CHALLENGES OF MEDULLARY THYROID CARCINOMA IN PEDIATRIC PATIENTS WITH INHERITED MEN2A SYNDROMES

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Introduction: Multiple endocrine neoplasia 2A (MEN 2A) is an inherited dominant syndrome due to specific RET proto-oncogene mutations characterised by medullary thyroid carcinoma (MTC), adrenal pheochromocytoma and hyperparathyroidism. Molecular genetic diagnostics are currently allowing familial types of MTC to be detected at an asymptomatic stage and surgery thus to be performed at a time when the prognosis is good. The current report aims to highlight the importance of appropriate monitoring of patients with hereditary MEN 2A syndrome as well as the importance of reasonable timing for prophylactic thyroidectomy in a paediatric patient with MTC. **Case Report:** We present the case of a 5-year-old male patient with a family history of MEN2A syndrome and metabolic syndrome who was admitted to our department for excessive weight gain and hypertension. Physical examination revealed an overweight patient (96.4th BMI percentile), cervical and axillary acanthosis nigricans and arterial hypertension (BP>95th percentile). Biochemical investigations revealed elevated basal and post-calcium stimulation test calcitonin levels, normal serum, and 24h-urine metanephrines levels and normal PTH levels. Thyroid ultrasound described a marked hypoechogenic area with an ill-defined margin and slightly visible intranodular vascularisation but no calcifications. 18F-FDOPA PET/CT did not describe local or distant metastases. Findings were overall consistent with MTC and the patient underwent total thyroidectomy. Histopathological examination confirmed the diagnosis of in situ MTC. Postoperatively the patient received long-term thyroid replacement therapy and the follow-up included thyroid ultrasound evaluation of residual disease, calcitonin and thyroglobulin levels, fractionated metanephrines and PTH every 6 months. DNA analysis of our patient and his brother, who had no endocrinopathies, confirmed the diagnosis of MEN2A by a mutation at codon 634 of the RET proto-oncogene. **Discussions :** Nearly all patients with MEN2A have either C-cell hyperplasia (CCH) or MTC, but the incidence of these manifestations depends on the underlying RET mutation. Even though our patient was not tested for RET gene mutations preoperatively, the MEN2A family history, high calcitonin levels and imaging findings were considered sufficient for the surgical indication. Even though thyroidectomy is associated with a higher morbidity rate in pediatric patients, in this case, it was necessary to prevent macro-invasive MTC, lymph node involvement and distance metastases. **Conclusions:** MTC is the most common cause of death in MEN2A patients, its early diagnosis through regular screenings and the optimal timing for prophylactic thyroidectomy are crucial. Genotype-phenotype correlation in MEN2A familial syndromes has a strong variability even in patients with the same mutation.

Keywords: multiple endocrine neoplasia type 2A, medullary thyroid carcinoma, prophylactic total thyroidectomy, RET proto-oncogene

EMERGENCY MANAGEMENT OF THE REFRACTORY STATUS EPILEPTICUS EVOLVING TO SUPER-REFRACTORY STATUS EPILEPTICUS IN A YOUNG PATIENT

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Introduction: Status Epilepticus (SE) is an emergency that leads to significant morbidity and mortality; therefore, it must be diagnosed and treated promptly. Refractory SE is defined as ongoing seizures despite two appropriate antiepileptic drugs including a benzodiazepine. The term "Super-Refractory SE" was coined in 2011 and it indicates continuous or recurrent seizures lasting 24 hours or more following administration of anesthetics or seizures that recur on weaning the patient off the anesthetic agent. **Case Report:** This case regards a 37-year-old male patient known with HIV and tonic-clonic seizures since childhood, pulmonary tuberculosis (2020), and cerebral toxoplasmosis (2021). At arrival, after 4 generalized seizures and administration of benzodiazepines on the ambulance, his vitals were: GCS 9pt (M4, V3, O2), RR 20/min, BP 187/105mmHg, HR 140/min sinus rhythm, SpO2 82%, temperature 37.6, glycemia 89mg/dl. An unsuccessful second-line therapy with phenytoin was initiated: generalized seizures continued with no return to neurological baseline. The following step was rapid sequence intubation and general anesthesia to control seizures and protect airways. Blood results revealed severe pancytopenia: leukopenia (1.19/μL), lymphopenia (0.27/μL), anemia (Hb 10.2 g/dl), thrombocytopenia (61.4×103/μL). The head CT showed global cerebral atrophy, the pulmonary CT revealed minimal left pneumonia, bilateral fibrosis and emphysema bubbles bilaterally. Hemocultures were obtained and antibiotics were started. After 24 hours and an attempt to wean him off the ventilator, seizures continued. He was then transferred to the ICU, where treatment was continued and 2 days later the patient was conscious, oriented and left the hospital refusing further treatment. Despite being hospitalized and undergoing general anesthesia multiple times during the past 4-6 weeks (because of lack of adherence to treatment and comorbidities), the patient was always discharged in good conditions. **Discussions :** Current guidelines suppose that first-line therapy for GCSE will take 30 minutes. If no satisfactory response is achieved in this time span, the patient is considered in a RSE, for which it is essential to re-assess airways, consider intubation, check glucose, and initiate neurological consultation and bedside EEG. At this point, one of the following three medications can be initiated: Midazolam (0.2 mg/kg bolus, 0.05-0.2 mg/kg/h infusion), Pentobarbital (5-15 mg/kg bolus, 0.5-10 mg/kg/h infusion), or Propofol (3-5 mg/kg bolus, 1-15 mg/kg/h infusion). **Conclusions:** Immunocompromised patients and those who do not adhere to treatment are more subjected to develop RSE and SRSE, thus there should be no delay in starting therapy for RSE and efforts should be made to prevent it through a multidisciplinary approach.

Keywords: #RefractoryStatusEpilepticus, #Super-RefractoryStatusEpilepticus, #EmergencyManagement, #Immunocompromised

CHALLENGES IN MANAGING EARLY-ONSET CROHN’S DISEASE

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Introduction: Crohn's disease is a chronic inflammatory bowel disease which might result from a complex interaction between the following: genetic susceptibility, impaired immune response and environmental triggers. It is delineated by a transmural, granulomatous inflammation that can affect the entire gastrointestinal tract, illustrating a discontinuous pattern. It involves periods of activity and remission, with the presenting symptoms: colicky pain, low-grade fever and weight loss due to diarrhea, anorexia and fear of eating. **Case Report:** We report a case of a 41-year-old male with a history of ileocaecal Crohn's disease who is non-responsive at both immunosuppressive drugs (Azathioprine) and anti-inflammatory drugs (Mesalazine). The patient had undergone ileocolonic anastomosis after right hemicolectomy due to an acute episode in 2010 and has been under immunosuppressive and anti-inflammatory therapy since. He is also known with erosive antral gastritis as well as with an old myocardial infarction for which he follows a therapy with Clopidogrelum and Bisoprololum. Total colonoscopy performed in 2010 illustrated the hemicolectomy as well as grade 1 internal hemorrhoids with small lesions. However, the one performed in 2022 showed an upper rectal sessile polyp, which has been endoscopically excised. An upper GI endoscopy performed in 2022 confirmed the erosive antral gastritis. **Discussions :**

Since the classical treatment was non-effective for this patient, the biological therapy was implemented. It has to be taken into consideration the fact that the most common indications for surgery are represented by fistula, abscess, obstruction and in this particular case, surgical management was necessary due to the unfavorable evolution. Moreover, patients with elderly onset are associated with a less progressive course of the disease and a better outcome. **Conclusions:** To conclude, the presented case displays the situation of a patient that suffered a major complication during the standard therapy, so that the surgical intervention was necessary. The alternative treatment established in this case was the biological one. Currently, the patient has been recommended the new implemented treatment and he is expected for a follow up in order to initiate the proper therapy with Adalimumab.

Keywords: Crohn's disease, Hemicolectomy, Biological therapy

REVEALING THE DIAGNOSTIC MYSTERY: SINGLE-PLAQUE PSORIASIS - A CASE REPORT

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Introduction: Psoriasis, a chronic immune-inflammatory skin condition, is prevalent worldwide, affecting approximately 2-3% of the population. Typically, psoriasis manifests in various forms such as plaque, guttate, inverse, pustular, or erythrodermic psoriasis, with symmetric psoriatic plaques on common body areas aiding diagnosis. However, atypical presentations challenge clinicians in accurate identification and management of the condition. **Case Report:** This case report series highlights two patients presenting with a rare manifestation of psoriasis - a single large, erythematous plaque localized on the lower leg. Despite a lack of typical symmetric plaques and poor response to previous treatments, a diagnostic biopsy confirmed psoriasis. Both patients exhibited significant improvement following local therapy. **Discussions :** The atypical presentation of single-plaque psoriasis in these cases underscores the importance of considering diverse phenotypes in diagnosing psoriasis. While classical presentations facilitate diagnosis, clinicians should remain vigilant for unusual manifestations to avoid misdiagnosis and ensure appropriate treatment. Further research into the pathogenesis and clinical spectrum of psoriasis is warranted to better understand and manage such variants. **Conclusions:** These case reports shed light on the diagnostic challenge posed by single-plaque psoriasis, urging clinicians to broaden their diagnostic considerations beyond classical presentations. Early recognition and accurate diagnosis are essential for effective management and improved patient outcomes. Continued research efforts are crucial for elucidating the diverse manifestations of psoriasis and optimizing diagnostic and therapeutic strategies.

Keywords: psoriasis, atypical presentation, diagnostic biopsy

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BITING OFF MORE THAN YOU CAN CHEW: A CASE REPORT ON AN IMPACTED FOOD BOLUS

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Introduction: Food bolus impactions are acute events that usually ameliorate without medical intervention, by thrusting the aliments into the stomach or by regurgitation. These impactions can have either a mechanical or a functional etiology. While peptic strictures or Schatzki rings represent physical barriers, diffuse motor abnormalities or esophageal spasms alter the peristaltic activity of the esophagus. Even though the food bolus may advance into the stomach after a period of relaxation, an endoscopy may prove to be a useful investigation to detect the level and causes of the obstruction. **Case Report:** We present the case of a 75 years old male, known with the following comorbidities: hypertension under treatment, type II diabetus mellitus, chronic ischemic cardiomyopathy, chronic venous insufficiency, ascending aorta aneurysm, that presented to the emergency department accusing post-ingestion dysphagia. Lab findings showed hyperglycemia (170 mg/dl) and hypercholesterolemia. Considering the presence of the dysphagia, an upper gastrointestinal endoscopy was performed disclosing an impacted bolus located 35 cm from the dental arcade. Due to the dimension of the aliment, the cardia could not be visualized and the progression with the endoscope was not possible leading to multiple efforts of unsuccessful extraction. The patient was admitted to the Gastroenterology Department and the procedure was repeated the second day. After the intragastric advancement of the bolus, the endoscopy revealed: Retention esophagitis class D Los Angeles, Esophageal stenosis and dysplasia, Erosive gastroduodenitis. A biopsy was collected, disclosing an active chronic

gastritis with *Helicobacter Pylori* and alterations suggestive for reflux esophagitis. Treatment was initiated with Pantoprazole, Domperidone and a mixture of hyaluronic acid, chondroitin sulfate and aluminum hydroxide. **Discussions :** The Los Angeles Classification is used in grading the evolution of the reflux esophagitis by the severity of mucosal lesions. Class D esophagitis is characterized by single/multiple mucosal ulcerations involving 75% or more of the esophageal circumference and is the most uncommonly encountered grade. Considering both the chronic erosion caused by acidity and the *H. Pylori* infection (possibly correlated in recent studies with esophageal reflux), the ulcerations lead to the formation of an esophageal stenosis. This narrowing of the esophageal lumen facilitated the impaction of the food bolus, leading to further irritation and aggravation of the stenosis. **Conclusions:** Food bolus impactions should be investigated in a clinical context, even if they can sometimes resolve without intervention. For patients that present several comorbidities, finding and treating the underlying cause of the impaction will lower the recurrency of the episodes.

Keywords: Impacted food bowl, Dysphagia, Reflux esophagitis, Gastrointestinal endoscopy

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LEAVE NO STONE UNTURNED: A CASE REPORT ON DIFFERENT CAUSES OF EOSINOPHILIA

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Introduction: Allergic asthma is a chronic inflammatory disease that consists of a hyperreactive respiratory tract when in contact with specific stimuli, causing a reversible and variable obstruction of the air flow. Atopy is commonly associated and can lead to the development of various allergic reactions. These pathological responses can affect both respiratory and digestive tract, while eosinophilia, swelling, abdominal pain and urticaria can also develop. Considering that eosinophilia is also common for parasitic infections, a thorough differential diagnosis should be made. **Case Report:** Our case: 10 year old girl accusing difficulty in breathing and abdominal pain. The girl was prematurely born at a gestational age of 31 weeks, weighing 800g due to chronic fetal distress. Collateral history provided by mother: multiple respiratory infections, abdominal pain after bread consumption, inappetence in the past 6 months, sneezing episodes at home and at contact with the family's cat. Clinical findings: diffuse bilateral sonorous rhonchi, sibilant rhonchi in the left upper hemithorax; spirometry: diminished forced expiratory flow. Paraclinical investigations: skin prick tests revealed sensitization to dust mites, cat epithelia, Gramineae and Ambrosia pollen, that were later supported by high levels of IgE for the specified allergens. Both the prick test and specific IgE levels were negative for wheat flour. Therefore, IgA anti-transglutaminase antibodies were measured under the hypothesis of celiac disease, which was later infirmed. The Complete Blood Count showed eosinophilia. Considering the spirometry, the symptoms and the positive atopy tests, the patient was diagnosed with persistent and uncontrolled allergic asthma GINA 3 stage. Stool sample tests (including PCR) were performed to explore the etiology of the ongoing abdominal pain, which returned positive results for *Blastocystis hominis* and *Dientamoeba fragilis*. Adapted anti-parasitic medication was initiated (Metronidazole) and the patient is constantly reevaluated. **Discussions :** When facing a patient with eosinophilia, a physician should narrow the differential diagnosis by considering the potential allergic background, the environment of the patient and the associated symptoms. Parasite infestations can be partly masked by celiac disease signs, and therefore the digestive syndrome was inappropriately first attributed to atopy and consumption of wheat flour. Clinical investigations attributed the abdominal pain to a protozoa infestation, but protozoa in particular do not usually cause eosinophilia, which was actually caused by allergens. **Conclusions:** Differential diagnosis is essential in patients with a wide range of symptoms. Even though allergic asthma, eosinophilia and atopy are related, a holistic approach will lead the physician to the right diagnosis.

Keywords: allergic asthma, atopy, eosinophilia, protozoa

ACUTE SEVERE ULCERATIVE COLITIS ASSOCIATED WITH MULTILOCULAR PYODERMA GANGRENOSUM AND EPISCLERITIS, SUCCESSFULLY TREATED WITH INFLIXIMAB

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Introduction: Paediatric Inflammatory Bowel Disease (PIBD) represents a major psychosocial issue, given its detrimental effects on patients' quality of life, growth and puberty, nutritional and bone status, as well as increased

healthcare costs. **Case Report:** A 15-year-old female was admitted to our clinic in June 2023, presenting 10-15 bloody watery stools/day, postprandial vomiting, involuntary weight loss (8 kg.), altered general condition, episcleritis, and multiple vesicular lesions resembling a herpetic infection. First symptoms were noted in January 2023, 1-2 semi-solid stools/day, intermittently bloody. The paediatrician recommended treatment with oral Sulfasalazine for one month, without any endoscopic/imaging investigation. In our clinic, colonoscopy revealed a "cobblestone appearance" of the transverse colon and continuous inflammatory changes distally; upper endoscopy was normal. The case was initially interpreted as severe Crohn's disease (CD), prompting initiation of Methylprednisolone therapy and exclusive enteral nutrition. Histological examination revealed active severe Ulcerative Colitis (ASUC). The disease course was unfavourable under the above-mentioned therapy, with persistent bloody stools, requiring blood transfusions and albumin administrations, severe activity, and development of multilocular pyoderma gangrenosum. Consequently, Infliximab was initiated as rescue therapy (recommended in both PIBD types) with prompt excellent response, both intestinal and extraintestinal. The patient was discharged with a PUCAI score of 5. Eight months later, our patient maintains a complete clinical, endoscopic, and histologic remission. **Discussions :** We presented a case of ASUC associated with rare complications, multilocular pyoderma gangrenosum and episcleritis, with a remarkable improvement shortly after Infliximab therapy. Notable is the initial appearance of pyoderma gangrenosum resembling a herpetic infection. The severe endoscopic aspect in the transverse colon with transmural inflammation associated with milder mucosal oedema distally is also worth mentioning. **Conclusions:** Patients presenting with bloody diarrhea should have accurate testing, recommended by current guidelines, before administration of any therapy. The 5-months delay in diagnosis caused an extremely stressful period for our patient, resulting in a moderate depressive episode, exacerbation of the digestive symptoms, weight loss of 8 kg., requiring albumin and blood transfusions, a prolonged corticosteroid treatment and the need of biological therapy to induce remission. Thus, we want to emphasize the importance of a comprehensive diagnosis work-up in PIBD, established through clinical, biological, coprological, imaging, endoscopic, and histological evidence, as well as the need for prompt treatment; otherwise, invalidating complications may occur.

Keywords: Ulcerative Colitis,, Multilocular Pyoderma Gangrenosum,, Episcleritis,, Infliximab therapy

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A STITCH IN TIME SAVES NINE: A CASE REPORT ON THE COMPLICATIONS OF UNTREATED GASTROINTESTINAL BLEEDING

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Introduction: Upper gastrointestinal bleeding defines blood loss from the gastrointestinal tract, situated above the ligament of Treitz. Presenting symptoms may include hematemesis, melena or hematochezia. Weakness, fatigue, orthostatic hypotension or syncope can also be associated due to potential severe blood loss. Risk factors include anticoagulant use, high doses of nonsteroidal anti-inflammatory drug use, active *Helicobacter pylori* infection, gastritis and peptic ulcers. **Case Report:** Our case: 43 years old male, with a recent history of peptic ulcer under treatment, presented in the emergency department accusing melena (starting 5 days prior to consultation) and syncope. Paraclinical investigations: Hb 7.2 g/dl (severe secondary anemia), urea 64 mg/dl. Through the nasogastric tube stasis liquid was evacuated, while rectal examination was positive for melena. Upper gastroesophageal endoscopy disclosed the presence of erosive gastritis, posterior-bulbar duodenal ulcer (Forrest 2A class) and sliding hiatal hernia. The patient was admitted to the Gastroenterology Department and received the following treatment: Pantoprazole, Carbazocrome and Etamsylate. During the hospitalization the patient received 2 units of transfusion blood, that progressively ameliorated his general status. Since the ulcer was endoscopically described as non-bleeding, but with a visible vessel, multiple attempts in clamping the hemorrhage source were performed, but without success due to the difficult position. The medical treatment initiated consisted of Pantoprazole, chondroitin sulfate and hyaluronic acid for the gastric protection, and Amoxicillin, Levofloxacin and bismuth oxide for the *H. Pylori* infection, that was revealed by high serum IgG levels. **Discussions :** The erosive gastritis and the infection with *H. Pylori* are the main causes of the peptic ulcer, that may lead to gastrointestinal bleeding. The loss of blood and the severe secondary anemia culminated into an episode of syncope and therefore, when investigating such a hemorrhage, identifying its precise location is of great importance. The Forrest classification is used to predict the risk of further bleeding and to guide the gastroenterologist in finding the right approach, in particular if they should use endoscopic therapy. Current guidelines recommend this specific technique for ulcers with active spurting/oozing and for those with nonbleeding visible vessels (the case of our patient). Eradicating the bacterial infection is also essential for avoiding recurring episodes. **Conclusions:**

Considering the potential complications of gastrointestinal bleeding, endoscopic exploration can be the key in finding the source of the hemorrhage. High volumes of blood can be lost, leading to severe hemodynamic effects. Not only the bleeding should receive treatment, but also the underlying pathology must be targeted.

Keywords: upper gastrointestinal bleeding, syncope, Helicobacter Pylori, endoscopy

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THE LOVE TRIANGLE OF TROPOMYOSIN: A CASE REPORT ON CROSS-REACTIVITY REACTIONS

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Introduction: Cross-reactivity allergies represent the potential of one antigen to induce an antibody mediated immune response in the organism after exposure in a person that already has a sensitivity to another antigen that has common epitopes. In our presented case, the passage of the allergens is different, despite sharing the same epitope. **Case Report:** Our case: 43 years old male, known for having bronchial asthma stage GINA 2, currently under treatment, smoker, allergic to dust mites. The patient was admitted to the emergency department with the following symptoms: maculopapular rash present on face and thorax accompanied by burning sensation. The patient related the symptoms appearing after eating and performing physical activity. After the administration of intravenous hydrocortisone, the symptoms alleviated. Follow-up allergology examinations: family history - son with allergic rhinitis and hypersensitivity for dust mites; physical examination - normal; paraclinical investigation - cutaneous prick test positive only for dust mites, ALEX allergy IgE test - very high sensitization for fish and seafood (tropomyosin), high sensitization for dust mites and cockroaches, low sensitization for fire ants and bee venom. The concluded diagnosis was acute urticaria caused by food allergy and atopy, as the patient remembered consuming mussels before the allergic episode. The treatment includes a restrictive diet (by avoiding fish and seafood), H1 antihistamines (for the allergic symptoms), inhalation corticosteroids and long-acting β2-agonists (for the asthma). **Discussions :** The typical picture of an asthma patient includes bronchial hyperresponsiveness and atopy. The second one can induce the development of acute hives or airway inflammation, depending on the accessed pathway of the antigen that induced the IgE response. The ALEX allergy test measures the level of IgE antibodies in the blood produced in response to an allergen and can also help in disclosing a cross reactivity between allergens. Since the result of the prick test was positive only for dust mites and considering the medical history which disclosed seafood consumption, the ALEX allergy test was performed. The investigation revealed hypersensitivity for tropomyosin. The primary way of sensitization remains under discussion, since the hypersensitivity to dust mites occurs through the respiratory tract, and the one for seafood and fish via ingestion.
Conclusions: Allergenic tropomyosin can be found in non-vertebrates such as crustaceans (shrimp, crab), insects (cockroaches) and arachnias (dust mites). Therefore, it may be an important cross-sensitizing pan allergen that can provoke acute reactions in patients with atopy, especially in those uncompliant to their treatment and diet.

Keywords: allergenic cross reactivity, bronchial asthma, tropomyosin, ALEX

ANKYLOSING SPONDYLITIS - THE INCARCERATING DISEASE

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Introduction: Ankylosing spondylitis (Bechterew's disease) is a chronic inflammatory disease, commonly found in young men in their third decade of life, that primarily affects the spine and the sacroiliac joints. This disease is characterized by the fusion of vertebrae and loss of mobility in the cervical and thoracic regions, leading to deformities. **Case Report:** The case of a 52-year-old man who presents the following signs and symptoms swelling and inflammatory pain in the right radiocarpal joint, which started suddenly and is associated with significant functional impairment. He also experiences similar symptoms in the small joints of his hands. Additionally, he has mixed-type dorso-lumbar pain and coxalgia. Due to the worsening of symptoms and the patient's condition deteriorating, with pain not responding to non-steroidal anti-inflammatory drugs (NSAIDs), the patient presents at the Rheumatology Clinic. During the clinical examination, the following findings were noted: plantigrade gait, arthritic nodules on the hands, and regarding the spine, there is a high dorsal kyphosis, erasure of lumbar lordosis, and left-convex dorso-lumbar scoliosis. During the paraclinical examination, laboratory tests detected the presence of inflammatory markers: ESR (erythrocyte sedimentation rate) of 71 mm/h, CRP (C-

reactive protein) level of 91.54 mg/dL and radiological examination revealed signs of bilateral sacroiliitis, with blurring of the joint line and a periarticular condensing process and syndesmophytes. Due to the activity of the diseases, biological therapy was mandatory. Initially, the patient presented an ASDAS-CRP score of 4.6 (increase activity), then after the initiation of adalimumab at 6 months respectively at 12 months the ADAS -CRP score was: 1.28 and 0.87 (that means remission). As for the BASDAI score, at the first evaluation the patient presented a suboptimal control of the disease (high disease activity) - 7.8, at the second and the third evaluation the BASDAI score decreased to 0.4 and 0 showing low disease activity. **Discussions :** Both the clinical and paraclinical aspects outline the typical profile of a patient with ankylosing spondylitis, stage IV, meeting the criteria for initiating biological therapy (Adalimumab). **Conclusions:** In conclusion, early diagnosis coupled with targeted therapy and physical therapy can lead to a favourable outcome and a reduced risk of complications and disease progression. This approach can effectively combat the significant impact that ankylosing spondylitis has on a patient's life.

Keywords: Ankylosing spondylitis, biological therapy, ASDAS, BASDAI

A RARE CASE OF COLORECTAL CANCER COUPLED WITH PULMONARY FIBROSIS

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Introduction: Interstitial lung disease refers to a spectrum of chronic lung disorders characterized by the deposition of scar tissue, also known as pulmonary fibrosis. This condition often leads to respiratory failure and is influenced by various etiological factors. Concurrently, chronic obstructive pulmonary disease (COPD) frequently coexists, presenting with airflow limitation typically due to chronic bronchitis and emphysema. Meanwhile, colorectal cancer stands as the third most prevalent malignancy, associated with a high mortality rate. Its inception usually begins with the formation of polyps, particularly adenomas, on the inner lining of the colon or rectum.
Case Report: A 56-year-old female patient presented to the hospital with constipation and rectorrhagia and with a previous diagnosis of stage 3 rectosigmoid neoplasm. Diagnostic procedures, including colonoscopy and MRI, revealed a stenotic lesion measuring 78 mm at the rectosigmoid junction. Pathology confirmed the diagnosis of colon adenocarcinoma. Additionally, the patient suffered from stage IV COPD and was referred to the pneumology department. Spirometry indicated a reduction in FVC by 56% and Vmax by 54%, suggestive of chronic respiratory failure and supported by bilateral pulmonary fibrosis evident on a CT scan. **Discussions :** Initially, the surgical excision of the lesion was considered. However, the anesthesiology team advised against it due to the pulmonary fibrosis. Thus, chemotherapy emerged as the preferred intervention. Oxaliplatin-based chemotherapy, specifically CAPOX containing Capecitabine, in association with Vandetanib, was initiated, demonstrating promising efficacy in previous studies. To manage respiratory complications, Ofev was prescribed to reduce fibrotic progression. Additionally, the patient received Trixeo and Ventolin for COPD management and respiratory support. This is an ongoing case, and thus far the patient has responded favorably to the administered medication. **Conclusions:** This case emphasizes the unique challenge posed by the confluence of respiratory dysfunction and colorectal cancer, necessitating a nuanced treatment approach and vigilant monitoring.

Keywords: pulmonary fibrosis, colorectal cancer, chemotherapy

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ACUTE RESPIRATORY DISTRESS SYNDROME: A CHALLENGING LIFE-THREATENING CONDITION

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Introduction: Acute respiratory distress syndrome (ARDS) is a frequent cause of ICU admission associated with high mortality; it is a respiratory condition characterized by severe hypoxemia and bilateral pulmonary opacities that are not fully explained by heart failure or fluid overload. The cause may be pulmonary (pneumonia, aspiration syndrome, inhalation injury, chest contusion) or extrapulmonary (sepsis of extrapulmonary origin, major trauma, massive transfusion, pancreatitis). **Case Report:** A 41-year-old woman, without any chronic medical conditions, was brought to the Emergency Department (ED) due to sudden onset dyspnea four hours prior. She presented fever, dry cough, and inappetence for six days and was treated at home with Cefuroxime and Levofloxacin. Upon arrival in the ED, she was conscious, tachypneic, tachycardic, sub febrile, with blood pressure between the normal

range, but a SpO2 of 70% on high flow oxygen. Noninvasive ventilation was initiated but proved ineffective, therefore, the patient was intubated and mechanically ventilated three hours after her arrival. A chest CT scan revealed bilateral diffuse ground-glass opacities associated with extensive consolidation with air bronchogram and minimal bilateral pleural effusion.The laboratory tests showed leukocytosis (neutrophilia), a CRP of 160 mg/dL, and a PaO2/FiO2 ratio of 62.Tests for SARS-CoV-2, influenza A, and B infections were negative, and an extended respiratory panel (multiplex PCR test) was also negative for viruses and atypical germs. Blood cultures, urine culture, and respiratory tract culture were negative as well. Empirical broad-spectrum antibiotics were started in the ED, and lung protective ventilation and alveolar recruitment maneuvers specific for severe ARDS were initiated. Thirty-six hours later, a pulmonary CT was repeated, showing improvement with partial regression of alveolar infiltrates, re-aeration of the upper half of the right lung and lung bases bilaterally; the PaO2/FiO2 ratio was 110. The patient was then transferred to the ICU and was ventilated for a total of 192 hours. A prone position was adopted for four hours a day for five days. The patient was extubated after eight days and discharged after an additional seven days. **Discussions :** This case presents an intriguing insight into the complexity of managing a severe respiratory condition such as ARDS, especially in the absence of a clear infectious cause. ARDS is a critical condition marked by the rapid onset of widespread inflammation in the lungs, often leading to severe hypoxemia. **Conclusions:** ARDS diagnosis and management can be challenging, but timely appropriate treatment as advanced ventilation strategies, is crucial.

Keywords: ARDS, ICU, Ventilation

PROGRESSES AND CHALLENGES IN THE MANAGEMENT OF MULTIPLE MYELOMA: NAVIGATING THROUGH A RELAPSING-REMITTING COURSE

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Introduction: Multiple myeloma (MM) is a type of cancer whose characteristic is the abnormal proliferation of plasma cells. Its cells produce non-functional monoclonal proteins (paraproteins), which can take the form of intact immunoglobulins (IgG, IgA, IgM, IgD) or parts of them (light chains like k or λ). The latter can also be found in the urine (Bence-Jones proteins). **Case Report:** A 58-year-old male patient known with diabetes mellitus type 2 (DM2) since 2012, diabetic polyneuropathy, primary hypertension, ischemic cardiomyopathy, transient ischemic attack (TIA), anemia and immunodeficiency, presented himself to the Neurology clinic in Târgu Mureș in June 2021 reporting lumbar back pain radiating bilaterally to the hips, and paresthesia of the left upper limb. The X-ray revealed osteolytic lesions at the level of the skull, greater trochanter and ischium, bilaterally. The complete blood count showed anemia (Hb 10.3 g/dl) and further biochemical investigations highlighted an ESR of 98 mm/h, which raised the suspicion of multiple myeloma. The bone marrow aspiration demonstrated increased plasma cells (82%), IgG 75.8 g/l, 12g/dl of proteins, and a level of monoclonal gamma proteins of 5,3g/dl. The diagnosis was confirmed based on the bone marrow aspiration results. Given his age, he was considered eligible for the autologous stem cell transplant, which was carried out after 6 cycles of Daratumumab-Bortezomib-Talidomida-Dexametasone treatment, in January 2022. Since February 2022, he has been on a daily regimen of Lenalidomide, 10 mg. **Discussions :** The patient was in remission when he presented himself at the hospital on the 7th of March 2024 accusing pain at the level of the right leg that prevented him from falling asleep. His current medications are Lenalidomide 10 mg per day, Acyclovir twice daily, Nebivolol for hypertension, Gabapentin, Saxagliptin and Metformin to try to keep diabetes under control. However, because the patient is not respecting his diet, his blood tests revealed increased levels of glycemia and triglycerides. There has also been an increase in the serum IgG, but since the percentage of plasma cells in his bone marrow is 6%, he will continue with his current treatment. **Conclusions:** Currently, MM is not a curable disease, but the related conditions and symptoms are treatable and its progression can be slowed. Stem cell transplantation, targeted therapy and immunotherapy have been fundamental in extending periods of remission and managing symptoms more effectively. Despite all these progresses, the relapsing-remitting course of the disease emphasizes the need of ongoing research and the development of new therapeutic strategies.

Keywords: Multiple myeloma, Cancer, Immunoglobulins, Bence-Jones

WHEN THE WOLFF RUNS FAST

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Introduction: Wolf-Parkinson-White (WPW) syndrome is characterized by the presence of one or several atrioventricular accessory pathways which can generate symptomatic arrhythmias, commonly atrioventricular reentry tachycardia (AVRT). It often exists alongside atrial fibrillation (AF), which leads to rapid ventricular rates via an accessory pathway, known as pre-excited AF, a potentially malignant type of arrhythmia. **Case Report:** A 55-year-old male patient was admitted to the emergency department with recent gastrointestinal symptoms. The 12-lead electrocardiogram revealed a regular wide QRS (145ms) tachycardia (225 beats/min), right QRS axis deviation, right bundle branch block morphology (Rr'), without evidence of atrioventricular dissociation, fusion nor capture beats, hemodynamically stable. Intravenous administration of Amiodarone resulted in the conversion to sinus rhythm, revealing a short PR interval, with positive delta wave in DII, DIII, aVF, V4-V5, intermittent R wave > S wave in V1, biphasic T wave in DII, DIII, aVF, V5-V6. Therefore, suspicion of antidromic AVRT secondary to a left free-wall accessory pathway. No pathological findings were revealed after a complete blood count was carried out; transthoracic echocardiogram showed a slightly left atrial enlargement. During the hospitalization, the patient developed an asymptomatic and hemodynamically stable episode of irregular wide-complex tachycardia (F.B.I), with different grades of fusions, revealing the concertina-like phenomenon secondary to AF mediated by accessory pathway, with spontaneous conversion to sinus rhythm. An electrophysiological study was performed, revealing the left free wall accessory pathway, with the induction of antidromic and orthodromic AVRT, with a SPERRI (shortest pre-excited RR interval) of 250ms. Successful radiofrequency catheter ablation was performed. **Discussions :** The identification of pre-excited AF is an infrequent manifestation of WPW syndrome. Nonetheless, certain individuals may remain asymptomatic despite evident pre-excitation on electrocardiographic recordings. The pronounced irregular RR intervals accompanied by diverse QRS morphology is a sign of pre-excited AF conducted through the accessory pathway. In such circumstances, the administration of intravenous Amiodarone or other agents aimed at AV nodal blockade may attenuate the intrinsic inhibition of orthodromic conduction, potentially fostering the onset of ventricular tachycardia (VT) or ventricular fibrillation (VF). A SPERRI of less than 250ms increases the risk of sudden death. **Conclusions:** The presence of irregular wide-complex tachycardia necessitates careful consideration for pre-excitation, highlighting the importance of vigilant evaluation and management in such cases. It is imperative to acknowledge the potential risk of sudden death, particularly in instances where SPERRI measures <250ms.

Keywords: Wolff-Parkinson-White, Pre-excited atrial fibrillation, Amiodarone, SPERRI

FAMILIAL HYPERCHOLESTEROLEMIA, A SILENT CONDITION COMPLICATED WITH A MYOCARDIAL INFARCTION AT A YOUNG AGE

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Introduction: The coronary artery disease (CAD) is one of the most frequent causes of death worldwide, with an increasing prevalence. Familial hypercholesterolemia (FH) is among the most common causes of myocardial infarction at a young age (<35 years) ,defined as a group of inherited genetic defects that predispone to accelerated atherosclerosis, associating an increased risk of premature cardiovascular complications. **Case Report:** We present the case of a 29-year-old male patient hospitalized in emergency conditions with continuous retrosternal and increased intensity pain of constrictive character, unresponsive to NTG or morphine. The 12-lead electrocardiogram revealed RS, minor BRD, Q waves in V1-V3, ST-segment elevation in V1-V2, aVR and depression in V5-V6. The medical test report shows high cardiac enzymes (CKMB 57-71, TnI 481-1724.8). Transthoracic echocardiography revealed LV with defective systolic function (EF 30%), hypokinesia antero-posterior SIV, akinesia apex and anterior wall. The patient is diagnosed with anterior Killip class IV AMI . The trivascular coronary disease with acute thrombolytic occlusions and subocclusive stenoses of variable degrees - ADA curvature II, ACD segment II, OM II-III ostial and proximal is detected on coronary angiography.The lesions are addressed serially, practicing thromboaspiration and implantation of 3 pharmacologically active stents at the

segments II-III of ADA and curvature II of ACD, without periprocedural complications.In addition, the patient's mother was also diagnosed with coronary disease at a young age. The lipid profile report a total cholesterol of 373 mg/dl; LDL 307mg/dl and HDL 49mg/dl. Taking into account the diagnosis of AMI at a young age, the heredo-collateral antecedents and changes in the lipid profile, the suspicion of familial hypercholesterolemia is draw and testing begins to confirm the diagnosis. **Discussions :** The prevalence of FH cases is increasing, however, it continues to remain underdiagnosed and undertreated. FH patients have high levels of atherogenic particles :LDLc and lipoprotein a, since birth, so early diagnosis is vital for patient management. According to the Dutch Lipid Clinic diagnostic criteria for FH, the index case amounts to a total of 8 points. Is suggested a more thorough evaluation of the lipid profile and genetic testing for the most frequent mutations: LDLR, APOB, PCSK9. **Conclusions:** FH predispone to premature coronary heart disease, often myocardial infarction being the first manifestation of the disease. An early detection, aggressive treatment, with a strict reduction of LDL are part of the cornerstone of FH.

Keywords: familial hypercholesterolemia, coronary heart disease, myocardial infarction, young

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CLINICAL ASSOCIATIONS BETWEEN ATRIAL FIBRILLATION AND ASCENDING AORTIC ANEURYSM

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Introduction: Atrial fibrillation is considered to be the most frequently managed arrhythmia in clinical practice, and it is linked to an increased risk of death, stroke, and peripheral embolism. Ascending aortic aneurysm is a life-threatening disease that is often difficult to detect prior to the occurrence of a clinical catastrophe but is a relatively less studied subject compared to abdominal aortic aneurysms. **Case Report:** We present the case of a 67-year-old patient admitted to the Clinical Rehabilitation Hospital in Cluj-Napoca for marked decrease in exercise tolerance and atypical chest pain. The pacient is known to suffer from essential arterial hypertension, peripheral artery disease and permanent atrial fibrillation. In addition, the patient has a history of mitral and aortic valve replacements for rheumatic valvular disease, an ascending aortic aneurysm and advanced atherosclerosis involving the abdominal aorta, celiac trunk and left renal artery. An echocardiography performed on admission revealed an ascending aorta with an increased diameter of 52 mm, dilated left atrium, reduced ejection fraction, hypokinetic interventricular septum and ecocardiographic signs of pulmonary hypertension. Laboratory tests revealed elevated BNP values and normocytic normochromic anemia, most likely induced by mechanical hemolysis, due to the presence of the mechanical valves. During hospitalisation, a surgical consultation was performed, which recommended the delay of the surgery for the aortic aneurysm and CT reevaluation over 6 months. Upon discharge, antithrombotic (VKA), antihypertensive, anti-ischemic and hypolipemiant treatment was prescribed. **Discussions :** The ESC 2023 Guide recommends imaging every 6 months for the follow-up of patients with ascending aortic aneurysm. Surgical treatment is indicated for aneurysms greater than 55 mm in diameter. It is debatable whether or not our patient will be able to undergo a new surgical intervention considering the high mortality risk calculated using Euroscore II (16.33%). Another issue worth mentioning is the imposibility of using NOAC as antithrombotic therapy for permanent atrial fibrillation, given the presence of the mechanical mitral and aortic valves, thus having to cope with the difficulties of keeping the INR value within therapeutic range using VKA. **Conclusions:** The presented case illustrates the increased risk of patients with multiple cardiovascular comorbidities to develop aortic aneurysm, as well as the need to control cardiovascular risk factors, given the fact that the co-existence of atrial fibrillation and aortic aneurysm is associated with a higher risk of negative clinical outcomes.

Keywords: Ascending aortic aneurysm, Atrial fibrillation, Antithrombotic therapy, Surgical treatment

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OBSTRUCTIVE SLEEP APNEA - A RISK FACTOR FOR ASTHMA EXACERBATIONS AND UNCONTROLLED HYPERTENSION

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Introduction: Obstructive sleep apnea syndrome (OSAS) can negatively impact bronchial asthma, leading to more severe forms that are not medication-controlled, exacerbations (especially nocturnal ones), sleep disturbances, and decreased quality of life. OSAS is also known as a major risk factor for uncontrolled secondary

hypertension (HTN). **Case Report:** A 53-year-old female patient, active smoker, known with infecto-allergic bronchial asthma with correct medication but that required high doses of combined anti-inflammatory and bronchodilator inhalers, was admitted to the Pulmonology Clinic with symptoms of an asthma attack: dyspnea on slight exertion, wheezing, productive viscous cough, asthenia, and daytime sleepiness. The patient had a history of asthma since 2012, poorly controlled hypertension, hypothyroidism, grade III obesity (BMI 41.9), varicose veins in the lower limbs, hepatic steatosis, and spondylarthrosis. The Asthma Control Test (ACT) score was significantly low, with a score of 12 (normal 25). We supplemented the treatment with bronchodilator medication, antibiotics, proton pump inhibitors, antihypertensives, and Detralex. Considering the risk factors (morbid obesity and exaggerated daytime asthenia/sleepiness), we suspected obstructive sleep apnea syndrome (OSAS) and performed a cardiorespiratory polygraphy. Severe OSAS was confirmed (apnea/hypopnea index (AHI) of 41/hour, severity being considered as high at AHI >30), and we performed the titration of the pressures required for Continuous Positive Airways Pressure (CPAP) therapy. We recommended treatment with 9 cmH2O CPAP, humidifier, during nighttime sleep and afternoons, associated with weight loss, through diet and increased physical activity under the supervision of a nutritionist/rehabilitation specialist, smoking cessation, treatment of comorbidities, avoidance of respiratory irritants and prophylactic influenza and pneumococcal vaccination. The patient's progress was rapidly favorable and led to her discharge under favorable conditions. **Discussions :** The correct treatment of asthma and comorbidities, along with the implementation of CPAP therapy, has significantly reduced the use of bronchodilators and anti-inflammatory drugs, normalized blood pressure values, and increased the quality of life, with a decrease in daytime sleepiness. **Conclusions:** In the presence of persistent symptomatic bronchial asthma despite correct treatment, risk factors that may contribute to exacerbations and to the lack of control will be intensely investigated and treated: obesity, gastroesophageal reflux, presence of sleep apnea, smoking and community infections. In our case, all these factors received special attention and treatment together with prophylactic recommendations which were provided to the patient.

Keywords: uncontrolled bronchial asthma, sleep apnea, cardiorespiratory polygraphy, risk factors

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BEYOND UNILATERAL NORMS: A CASE STUDY ON BILATERAL OVARIAN SEROUS CYSTADENOMA

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Introduction: Ovarian serous cystadenomas are benign tumors characterized by their epithelial origin and cystic nature, mainly found unilaterally. The histopathological examination is essential for the diagnosis, providing insight into their benign behavior and guiding clinical management. This report presents a rare case of bilateral ovarian serous cystadenoma in a 62-year-old woman, focusing on the histopathological findings and their significance in the patient's diagnosis and treatment. **Case Report:** A 62-year-old woman with complaints of abdominal discomfort and distension underwent diagnostic imaging that revealed bilateral ovarian masses. Given the patient's post-menopausal status, the discovery of an ovarian mass led to a higher suspicion for malignancy. Consequently, the patient underwent a complex surgical intervention, including laparotomy, adhesiolysis, and total hysterectomy with bilateral adnexectomy. To confirm the diagnosis, the excised ovaries underwent a histopathological analysis. **Discussions :** The bilateral occurrence of ovarian serous cystadenoma, as observed in this case, contributes to the existing literature due to its rarity, estimated to occur in 10-20% of cases. The histopathological examination revealed multilocular cystic structures, characterized by glands arranged within a hypocellular fibrous stroma and lined by an unistratified epithelium. This epithelium varied in presentation, sometimes denuded but primarily composed of serous cells, represented by ciliated types. Particularly, calcifications within the stromal component were observed, providing enhanced diagnostic clarity. These findings led to a definitive diagnosis of bilateral ovarian serous cystadenoma. The patient's age, symptomatic presentation, and potential for symptom relief guided the choice to pursue an extensive surgical approach. This highlights the multitude of factors that must be considered when treating benign but clinically relevant ovarian disorders. **Conclusions:** This case illustrates the essential role of histopathology in diagnosing and managing bilateral ovarian serous cystadenoma, highlighting the necessity of effective teamwork between pathologists and clinicians. Future research could focus on exploring the genetic mutations, biomarkers, and epidemiological aspects of serous cystadenomas, aiming to optimize therapeutic outcomes.

Keywords: ovarian serous cystadenomas, postmenopausal, total hysterectomy, ovarian neoplasm

PRECISE EXPLORATION OF MECKEL'S CAVE CYST VIA MRI IMAGING: A PATH TO ACCURATE DIAGNOSIS

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Introduction: Meckel's Cave, also known as the trigeminal cave or cavity, is a dural recess situated posteriorly and laterally in relation to the cavernous sinus. This anatomical structure contains the trigeminal ganglion, the proximal roots of the fifth cranial nerve and the trigeminal cistern. In very rare cases, various types of lesions, including arachnoid cysts, can occur within this localization. **Case Report:** Our aim is to highlight the importance of an early and correct diagnosis of lesions that are found in this site through multiplanar thin-slab magnetic resonance imaging (MRI). We present a case of a 65-years-old female patient who is admitted for left facial hemiparesis and with intermittent pain at this level. A multiplanar T2 MRI sequence with 0,1 mm slices (dedicated protocol) is able to recognise a cystic lesion that is affecting the left trigeminal cavum. From a morphological point of view, the cystic lesion presents as having smooth, well-defined thin walls, with a signal similar to cerebrospinal fluid (CSF), and appears to compress the trigeminal nerve. The interdisciplinary team which consists of a neurologist, radiologist and neurosurgeon agreed that the surgical intervention would be curative in this context and the benefits would outweight the risks. The procedure of fenestration involves the creation of a small opening or communication between the cyst and the subarachnoid space so that the fluid can drain without accumulating. The patient is being discharged afebrile, and hemodynamically and respiratorily stable with a good prognosis and improvement of her symptoms. **Discussions :** It is important to keep in mind this rare condition in order to differentiate it from other pathologies such as skull base meningiomas, trigeminal schwannomas, invasive pituitary adenomas, metastases, vascular malformations or aneurysms of the internal carotid. Worth mentioning is that the patient has undergone numerous neurological consultations due to pain complaints, but no clear diagnosis was reached because the previous MRI scans were conducted using standard protocols with thick slices. **Conclusions:** All patients that are exhibiting neurological deficits regarding the cranial nerves should be investigated by using T2 thin-slab multiplanar MRI sequences in order to diagnose such rare cases, allowing the best treatment to be chosen for each individual case.

Keywords: Meckel’s Cave, Trigeminal nerve, Cyst of Meckel’s Cave

MANAGING THROMBUS MIGRATION IN CAROTID ARTERY STENOSIS: A CASE STUDY OF ENDOVASCULAR INTERVENTION

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Introduction: Carotid angioplasty is a minimally invasive treatment procedure for atherosclerosis of the carotid arteries. Carotid angioplasty is necessary in the treatment of high-grade stenosis, as an alternative to surgical procedures (carotid endarterectomy). The intervention restores optimal blood circulation to the brain, thus preventing a transient ischemic attack or ischemic stroke. Carotid angioplasty is performed percutaneously, through a puncture in the skin, without the need for incisions. As a result, recovery is rapid and risks are minimal.
Case Report: We present a case of carotid artery stenosis in a 73-year-old male patient. He underwent radiological and imaging investigations at the radiology department, where several CT scans were performed. The results indicated the presence of a carotid artery with an abnormally narrow diameter, significantly restricting blood flow to the brain. For treatment, it was decided to perform an endovascular percutaneus angioplasty, during which doctors dilated the narrowed area using a catheter and a small-sized expandable balloon, under the protection of a filter. Additionally, a stent was placed to maintain vessel patency. Despite the initial success of the intervention, migration of a thrombus formed on the stent was observed, obstructing the upper and lower branches of the middle cerebral artery, with consequences on blood circulation to the brain. After several aspiration thrombectomies, blood flow was restored and the normal diameter of the carotid artery was regained. **Discussions :** One of the most feared complications when approaching the supra-aortic vessels are formation of blood clots, and their intracerebral migration. Whether the angioplasty is performed under open surgery or through an endovascular approach, protection of the intracerebral vessels in mandatory. Even though the operating team used a filter

placed in the petrous segment of the internal carotid artery, migration of a thrombus occurred after the filter was removed. Having a qualified operating team, with access to specialized equipment for thrombectomy is a second layer of prevention. In the presented case, the patient had an excellent outcome, with no neurological deficit, and improvement of the symptoms. **Conclusions:** In conclusion, despite the initial success of the endovascular percutaneous angioplasty procedure for carotid artery stenosis, the migration of a thrombus posed a significant challenge to blood circulation to the brain. However, timely intervention through aspiration thrombectomies ultimately led to the restoration of blood flow and improved patient outcomes.

Keywords: carotid, angioplasty, stent, thrombus

ENDOTIPSITIS: A TRANSJUGULAR INTRAHEPATIC PORTOSYSTEMIC SHUNT INFECTION

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Introduction: Transjugular intrahepatic portosystemic shunt (TIPS) is used to treat the complications of portal hypertension. This procedure reduces the blood pressure in the portal vein by creating a shunt between the portal vein and the hepatic vein. Endotipsitis is the infection or inflammation of the shunt, defined by continuous clinically significant bacteremia with or without vegetation/thrombi inside TIPS. **Case Report:** A 66-year-old male patient presented to our health care center with altered mental status, jaundice, distended abdomen, and bilateral edema of the lower limbs. Relevant information from the patient's history was: etanolic liver cirrhosis and refractory ascites for which he underwent a TIPS insertion 6 months before. Laboratory examinations displayed leukocytosis, elevated plasma protein C level, Child-Pugh score of 11 points, and Meld-Na 32 points. The infection assessment confirmed bacterial peritonitis and Escherichia-coli in both admission blood cultures. An antibiotic course with Cefotaxime was started for 10 days. Given the ascites recurrence, a TIPS dysfunction is suspected, ultrasound showed signs of dysfunction (low TIPS velocity, return of antegrade intrahepatic portal flow), and CT examination demonstrated thrombosis of the shunt. Later, he underwent a TIPS revision and the dysfunction was solved by balloon angioplasty. The patient initially improved (blood cultures were), but 7 days after discontinuing the antimicrobials, the patient developed a fever, and blood cultures were again positive with Escherichia-coli. In the absence of any other sites of infection, he was diagnosed with endotipsitis and continued antimicrobial therapy with Cefotaxime and afterward with Ciprofloxacin for 1 month, with a favorable outcome. **Discussions :** There are only a few cases of endotipsitis recorded in literature, a diagnosis of exclusion that must be suspected in case of recurrent bacteremia in a patient with TIPS insertion. The symptoms usually include fever, malaise, jaundice, recurrent ascites, and persistent bacteremia. A diagnosis of definite endotipsitis needs the presence of vegetations or thrombi of the TIPS on CT or ultrasound examinations. In most cases, the bacteremia is composed of multiple Gram-positive bacteria or even fungi; in our case, the source of the infection is just one pathogen. There is no data to support the prophylactic use of antibiotics before the initial TIPS unless the patient has joint, valve, and other endoprostheses. **Conclusions:** Endotipsitis is a serious complication after TIPS insertion that can lead to death but often goes underdiagnosed due to a lack of knowledge about it.

Keywords: TIPS, Infection, Hepatic cirrhosis, Portal hypertension

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NAVIGATING COMPLEXITIES IN ISCHEMIC STROKE MANAGEMENT: A CASE STUDY OF TANDEM ARTERIAL OCCLUSIONS AND ENDOVASCULAR INTERVENTION

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Introduction: Stroke is a common medical condition where the blood flow of the brain is suddenly stopped, leading to different neurological deficits. It mostly affects individuals aged 55 or above, but it can occur at any age. The stroke can come as an ischemic stroke, hemorrhagic stroke or even transient ischemic stroke. The most common type is the ischemic stroke, which can further come as large artery atherosclerosis, cardioembolic, small vessel disease, or other forms. **Case Report:** We present the case of a 37-year-old male patient who suffered an ischemic stroke. The patient underwent a comprehensive treatment protocol, including endovascular thrombectomy, following the identification of an obstruction of the internal carotid artery. Prior to the intervention, the patient underwent radiological and imaging investigations at the radiology department, where several CT scans were performed. The patient was referred to our clinic after a thorough neurological examination, with tandem

stroke, trough simultaneous occlusion of the cervical segment of the internal carotid artery, and middle cerebral artery. Initially, aspiration thrombectomy was attempted using an aspiration catheter, yielding only partial success. Eventually, combined thrombectomy was performed, where an aspiration catheter alongside a stent retriever was deployed, to capture the thrombus. The procedure was complicated by the thrombus fragmentation and migration into the upper trunk of the middle cerebral artery. After numerous attempts, successful recanalization was obtained, with the ischemic stroke attributed to an embolic thrombus originating from the heart, associated with the patient's atrial fibrillation. **Discussions :** The presented case highlights the complexity often encountered in managing ischemic strokes, particularly in younger patients. The use of a comprehensive treatment approach, including endovascular thrombectomy, highlights the evolving landscape of stroke management, where timely intervention is crucial to mitigate potential long-term neurological deficits. The tandem occlusion of the cervical segment of the internal carotid artery and middle cerebral artery poses an incredible challenge, employing innovative strategies such as combined thrombectomy to address the obstruction effectively. **Conclusions:** In conclusion, this case highlights the challenges and complexities in managing ischemic strokes, particularly when tandem arterial occlusions occur with embolic origin. Despite procedural difficulties, successful recanalization was achieved, emphasizing the importance of strategizing, adaptability and perseverance in stroke interventions.

Keywords: ischemic stroke, tandem arterial occlusions, endovascular thrombectomy, aspiration thrombectomy

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THE JOURNEY OF AN INCREDIBLE LOW BIRTH WEIGHT NEWBORN

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Introduction: In the realm of neonatology, tiny warriors born with incredibly low birth weights (ELBW & ILBW) stand apart, needing specialized care and attention. ELBW represents a birth weight below 1000 grams, while ILBW refers to newborns weighing under 500 grams. These infants are often exposed to a variety of challenges associated with extreme prematurity, from respiratory dysfunction to developmental hurdles. Expert management of ELBW and ILBW requires a united front of neonatologists, pediatricians, specialized nursing staff, and other medical professionals. **Case Report:** Patient C.T. was born naturally with a cranial presentation at a level 2 maternity hospital, weighing 450 grams, with a cranial circumference of 20 cm and a length of 32 cm. The APGAR score was 4/1 min and 6/5 min. Immediately after birth, the patient was transferred to a level 3 unit with hypothermia and moderate respiratory distress. In the first 5-6 days the patient weighed 380g. This newborn was diagnosed with all prematurity pathologies: Newborn Respiratory Distress Syndrome, chronic lung disease, specific perinatal period infection with unspecified germ, extreme immaturity at 22/23 weeks, ELBW newborn, neonatal infection with Serratia Marcescens, metabolic acidosis of the newborn, non-traumatic intraventricular hemorrhage grade 3, prematurity anemia, neonatal jaundice, and carbohydrate metabolism disorders. The therapeutic approach included placement in a heated incubator, monitoring, oxygen therapy under non-invasive ventilator support type nCPAP, hydroelectrolytic rebalancing, initiation of antibiotic therapy according to results, surfactant administration, administration of Phytonadione for hemorrhagic disease prophylaxis, caffeine citrate for respiratory system stimulation, treatment with Dexamethasone for bronchopulmonary dysplasia, phototherapy, administration of erythrocyte mass, and administration of vitamins. **Discussions :** This case stands out as one of the uncommon occurrences of ILBW , where it required 110 days for a premature weighing 450 grams at birth to stabilize and eradicate the factors that would have been impossible without the NICU intervention. The patient's progress has been incredibly positive, reaching a weight of 2400g by day 110, with ventilation levels exceeding 94%. Thanks to targeted treatment for Staphylococcus Aureus MSSA, prematurity infections have been effectively eradicated. Hematological analyses have shown all parameters to be within healthy ranges, with no adverse reactions observed during the treatment of anemia. **Conclusions:** The patient is now free from any prematurity related conditions, suggesting remarkable improvement. This positive outcome rises the possibility of normalization of ILBW infant. Despite presenting the full spectrum of prematurity complications, the favorable evolutions of this newborn gives hope for more successful outcomes.

Keywords: ILBW, ELBW, respiratory distress, 450g

PECULIARITIES IN THE MANAGEMENT OF THE PATIENT WITH RHABDOMYOLYSIS - CASE REPORT

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Introduction: 63-year-old patient is admitted into Internal Medical clinic I, through the emergency services at SCJU Arad, with the following symptoms: marked asthenia, severe dyselectrolytemia (severe hypokalemia, moderate hyponatremia, hypochloremia, severe hypocalcemia), obesity, severe rhabdomyolysis, Hypertension stage II, autoimmune thyroiditis with hypothyroidism. **Case Report:** Upon admission to Internal Medical clinic I, the general condition of the patient is influenced, stethacoustic pulmonary M.V. present, bilateral, fine left basal crepitation, rhythmic heart, AV 66 bpm, BP 110/60 mmHg, enlarged abdomen by fatty panicle, painless on superficial and deep palpation, diuresis and intestinal transit present, liver approx. 1 cm below costal rim. Paraclinical, the values of CPK is high: 4236.1 U/L at admission, which dynamically increases to 6352.1 U/L; 8148.0 U/L; subsequently at a value of 10926.0 U/L. Due to the severity of rhabdomyolysis, an increase in ProBNP secondary to the suffering and muscular stress of the body is evidentiated paraclinical, which is remitted dynamically. **Discussions :** Despite resting, this patient's CPK was elevated and progressing, although the patient was at complete rest. As a particularity for this case, primary paraclinical hyperaldosteronism was excluded (aldosterone 2.45 ng/dL, collected in clinostatism) and adrenal tumor was ruled out by performing CT. From literature we can affirm that in hypothyroidism, the values of CPK can be increased up to 5-7 times above the normal value and that in rhabdomyolysis we encounter hyperkalemia, but in this case we had a decrease in potassium and a defective correction. **Conclusions:** Affirmative, the patient cannot clearly report the date of initiation of statin treatment. Thus we can wonder if it was a possible side reaction after the initiation of the treatment. Another peculiarity encountered in this case may be the fact that during the hospitalization, the patient failed to show signs of renal failure, which is frequently encountered in rhabdomyolysis, due to the high molecular weight of myoglobin released during muscle destruction.

Keywords: Rhabdomyolysis, CPK, Asthenia, Hypokalemia

PARTICULARITIES OF IDIOPATHIC INTRACRANIAL HYPERTENSION SYNDROME - A CASE REPORT

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Introduction: Idiopathic intracranial hypertension (IIH), also known as Pseudotumor Cerebri, is a disorder characterized by the increase of intracranial pressure (ICP) without a detectable cause. Common symptoms include visual changes, headaches, tinnitus, nausea, and vomiting. It primarily affects overweight women. **Case Report:** We present the case of a 61-year-old obese woman (BMI 32.3) with controlled diabetes mellitus and subclinical hypothyroidism. She presented with migraine-like headaches, vertigo, nausea, tinnitus, and blurred vision a year before seeking a neurological consult. The ophthalmological consult revealed bilateral papilledema. The brain MRI revealed distended subarachnoid space surrounding the optic nerves with marked tortuosity of the optic nerves, empty sella, normal brain parenchyma and normal arterial and venous structures. The neurological examination was unremarkable apart from bilateral decreased visual acuity. The patient was admitted and treatment with osmotic diuretics and topiramate were promptly initiated, leading to headache and vertigo relief. The lumbar puncture was performed in lateral decubitus on day 5 after diuretic initiation with apparent normal opening pressure. The CSF analysis revealed no abnormalities. The bloodwork revealed a slightly elevated TSH but with normal thyroid function tests. The patient was discharged with chronic acetazolamide and topiramate treatment, along with weight loss recommendations. Over subsequent 1- and 3-months follow-ups, the symptoms resolved. The patient's papilledema has resolved, as evidenced by a normal fundus examination. The 3-month follow-up MRI was stationary. **Discussions :** The combination of clinical symptoms, bilateral papilledema, and characteristic MRI findings supported the diagnosis of IIH. Timely treatment initiation resulted in a positive outcome. The goals are to

preserve optic nerve function, decrease the ICP and for overweight patients, weight loss. Complications arise from untreated or treatment - resistant papillaedema, visual loss and persistent elevated ICP. **Conclusions:** Early recognition and therapy initiation are essential in managing IIH. It is ideal to follow a multidisciplinary approach based on the patient's history, physical examination, and neurological and ophthalmological imaging. Prognosis depends on the severity of symptoms, in this case the evolution was favourable.

Keywords: #Intracranial Pressure, #Idiopathic Intracranial Hypertension, #Pseudotumor Cerebri, #Bilateral Papilledema

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THROMBOCYTOSIS IN MDR MIXED TB: HEMATOLOGICAL DISEASE OR INFECTIOUS COMPLICATION?

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Introduction: Tuberculosis is one of the most common infectious diseases, generally caused by Mycobacterium tuberculosis. Most commonly, tuberculosis affects the lungs. It is transmitted through the air, through the Flügge droplets. The treatment of tuberculosis is standardized, according to the National Tuberculosis Control Program and according to the antibiogram. **Case Report:** Patient aged 43 years, smoker 20 PA withdrawn 5 years ago, without exposure to occupational pollutants, known with secondary nodulo-infiltrative pulmonary tuberculosis, presents himself by appointment, accusing cough with muco-purulent expectorations, predominantly nocturnal and fatiguability. Sputum is collected in order to perform microscopic and bacteriological examination with antimicrobial susceptibility test, which shows the presence of Koch bacillus resistant to Rifampicin. It is decided to hospitalize him for supervision and further treatment. Chest X-ray reveals infiltration of the left hilar lymph nodes and caseous pneumonia of the left upper lobe. The patient presents fibrinogen, PCR, ESR and platelets (606 * 103 / µL) with high values secondary to peritoneal and intestinal tuberculous dissemination, but also a mild secondary anemia (Hb 10 g / dL). Also, uric acid is increased (8.6mg/dL), without any other changes that advocate a rheumatoid condition. The patient was initially treated with Hydrea to correct thrombocytosis, but without an adequate response. Subsequently, this was interpreted as a secondary response due to tuberculosis infection. Culture and antimicrobial sensitivity test are performed from the patient's stool, which reveals a positive result to the tubercle bacillus, resistant to Rifampicin. Individualised treatment with Pyrazinamide 500 mg and Cycloserine 250 mg was initiated. During hospitalization, the patient becomes apathetic and treatment with Serlift is started at the recommendation of a specialist consultation. The evolution of the patient is favorable during hospitalization, hemodynamically stable discharge with appropriate recommendations. **Discussions :** The particularity of the case is given by the resistance of bacillus Koch to Rifampicin and the need to implement individualized treatment. Thrombocytosis is a rare complication of tuberculosis, its levels increasing concomitantly with PCR, but improving during hospitalization. Hyperuricaemia with significantly elevated levels (above 110 mg/dL) is a relative contraindication for pyrazinemide administration. **Conclusions:** Tuberculosis can present a panel of very complex and variant signs and symptoms, not all triggering mechanisms being fully known. The fact is that they must be discovered early and treated properly to avoid further complications and long hospitalizations.

Keywords: tuberculosis, hyperuricemia, leukocytosis, individualized treatment

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INFLAMMATORY BOWEL DISEASE AND ASSOCIATED EXTRAINTESTINAL MANIFESTATION: A CASE REVIEW OF UC IN A PATIENT WITH PSC

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Introduction: Inflammatory bowel diseases(IBD) are chronic immune-mediated diseases of the gastrointestinal tract, which include Crohn's disease(CD) and Ulcerative colitis(UC); they are characterized by chronic inflammation caused by a dysregulated immune response that leads to tissue inflammation and destruction. Although IBD is primarily considered an intestinal disorder, it is, moreover, a systemic disease that can affect other parts of the body. Between 25-40% of IBD patients develop extraintestinal manifestations(EIMs). Up to 50% of IBD patients may experience hepatobiliary complications during their disease; this may include diseases such as Primary sclerosing cholangitis(PSC) which is a chronic liver disease characterized by fibrosis of the intrahepatic and

extrahepatic bile ducts. **Case Report:** A 43-year-old patient known with Ulcerative Colitis(pancolitis)since 2019 and associated Primary Sclerosing Cholangitis, under biological treatment with Vedolizumab (since 09.2021), 5-ASA, and Ursodeoxycholic acid, presented to the clinic due to low consistency stools mixed with mucus and fresh blood and with associated weight loss. **Discussions :** At admission, the patient had elevated inflammatory markers (ESR-64mm/h), therefore due to current symptomatology a lower digestive endoscopy was performed, which highlighted the congested and granular appearance of the mucosa and the absence of vascular pattern on multiple portions; the result showed medium activity hemorrhagic UC and a Mayo score of 7 points was calculated. Due to the increase in activity, the therapeutic regime with Vedolizumab was intensified (300mg infusion every 4 weeks). IBD and PSC are often linked together and mentioned with the term PSC-IBD. Research indicates that about 70% of patients diagnosed with PSC also have an underlying IBD condition, with UC being the most common. On the other hand, only 5% of UC patients will develop PSC. It's important to note that cholangitis can be asymptomatic, which is why it's recommended that IBD patients undergo screening with liver function tests to detect PSC. The presence of both PSC and IBD individually increases the risk of malignancy. However, when presented together, the risk is significantly higher. Therefore, regular screening for both colorectal cancer(CRC) and Cholangiocarcinoma(CCA) is necessary at shorter intervals. **Conclusions:** The patient is re-evaluated after 6 months and presents with negative symptomatology, laboratory analysis within normal limits and the endoscopic examination confirmed UC in a phase of remission and a Mayo score of 1 point was calculated. To sum up, it's very important for patients with both UC and PSC to obtain remission and be screened yearly for malignancy due to the increased risk when combined.

Keywords: Inflammatory Bowel Disease, Ulcerative colitis, Primary Sclerosing Cholangitis, Vedolizumab

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NELSON SYNDROME: THE IRONY OF HAVING AN EXQUISITE FEEDBACK

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Introduction: Nelson syndrome is a rare condition characterized by a range of symptoms including visual deficits, hyperpigmentation, headache, psychological manifestations and signs of pituitary dysfunction. It arises in 26% of patients who have undergone bilateral adrenalectomy for Cushing's disease treatment. **Case Report:** In 2019, a 51-year-old male patient underwent bilateral adrenalectomy for refractory Cushing's disease diagnosed earlier that year. Before the initial diagnosis, the patient experienced signs and symptoms for a year including a *moon-like face,* red abdominal striae, centripet obesity with *buffalo hump*, osteoalgia and myalgia.Subsequently, in February 2024, the patient exhibited severe daily headaches localized at the right hemisphere, generalized skin hyperpigmentation, and visual disturbances suggestive of Nelson syndrome. Laboratory findings revealed elevated ACTH levels (>2000 pg/mL), PRL levels (46,9 ng/mL), indicative of a pituitary adenoma with pituitary stalk compression, and low levels of TSH and fT4. The ophthalmologic assessment identified temporal hemianopia (LE) and left superior quadrantanopia (RE). An MRI displayed a sellar region mass, compressing the optic chiasm and invading the cavernous sinuses, encasing the left intracavernous ICA.In March, the patient underwent endoscopic surgery via the transsphenoidal route and received hormone replacement therapy with glucocorticoids (*Hydrocortisone*) and mineralocorticoids (*Astonin H*). **Discussions :** The pathophysiological hypothesis proposes that decreased negative feedback on the hypothalamus, following surgery, may lead to the overdevelopment of the ACTH-secreting tumor. Elevated MSH levels could cause generalized darkening of the skin. The upward extension of the tumor can lead to visual disturbances by compressing the optic chiasm. Thyrotropic insufficiency is caused by the compression of the pituitary stalk and of the pituitary non-tumoral tissue. This syndrome carries significant long-term risks, including potentially fatal acute complications (pituitary apoplexy, pituitary coma) as well as enduring chronic effects (neurological impairments, visual disturbances, pain, disfigurement). Based on the Knosp classification from the MRI, this case is classified as Knosp 4, impacting surgical outcomes. In this case, the surgical remission rate is 14% with a major complication rate of 18,6%. Another approach involves patients undergoing stereotactic radiosurgery, followed by medical treatment using somatostatin-analogs and dopamine agonists.Regardless of the treatment choice, patients must have a permanent replacement therapy for glucocorticoids and mineralocorticoids. **Conclusions:** Though a rare complication, Nelson syndrome is a complex disorder characterized by the enlargement of the pituitary gland and the overproduction of ACTH. Every patient who undergoes bilateral adrenalectomy should be checked every 3-6 months as early detection and prompt management are crucial for enhancing patient outcome.

Keywords: Nelson syndrome, adrenalectomy, generalized hyperpigmentation, ACTH

DIAGNOSTIC CHALLENGES IN IDENTIFYING POLYCYSTIC OVARY SYNDROME (PCOS)

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Introduction: Polycystic ovary syndrome (PCOS) is a common endocrine and metabolic disease affecting reproductive-aged women. PCOS is generally characterized by cystic morphology of the ovary associated with hyperandrogenism and ovulatory dysfunction. However, there are several PCOS phenotypes that can mimic other diseases. The clinical impact is primarily on the reproductive function, but it can frequently associate concomitant metabolic and psychological comorbidities. **Case Report:** An 18 years-old patient was evaluated for signs and symptoms of hyperandrogenism and menstrual irregularities. Paraclinical investigations were performed and they revealed an increased level of androstenedione (4.170 ng/mL), prolactin (518.2 uUI/mL), DHEA (436.8 ug/dl), 17-OH-progesteron (6.78 nmol/L) with normal thyroid function, levels of testosterone, estradiol, progesterone, IGF-1, and Cushing's screening tests. An ACTH stimulation test was needed to rule out late-onset congenital adrenal hyperplasia, which was subsequently negated based on the measured level of stimulated 17-OH-progesterone (6.51 ng/mL). Utero-ovarian ultrasound was performed and showed the presence of more than 10 follicles between 4-6 mm in diameter in both ovaries. Therefore, by excluding other causes of hyperandrogenism and menstrual irregularities, a diagnosis of PCOS phenotype A was established and treatment with combined contraceptive pills was initiated, the patient having afterwards a favorable clinical response. **Discussions :** When considering PCOS as diagnosis for a patient it is essential to exclude other possible causes for hyperandrogenism and ovulatory dysfunction. Non-classical congenital adrenal hyperplasia (NCAH) should always be considered a differential diagnosis in reproductive-aged women, as its symptomatology presents with menstrual irregularities and hyperandrogenism signs, mimicking PCOS. The exclusion of NCAH is performed with measurement of 17-OH progesterone and in some cases ACTH stimulation test is needed. Other pathologies that should be exclude before PCOS diagnosis are Cushing's syndrome, acromegaly, androgen-secreting tumors, hyperprolactinemia, and thyroid dysfunctions, due to the possible similar clinical presentation, but different therapeutic approach. All these conditions were excluded in our patient based on blood tests and imagistic findings, therefore a diagnosis of PCOS phenotype A was established. Considering the patient's age and desire to not get pregnant, treatment with combined contraceptive pills was started which eventually improved her quality of life by diminishing the signs and symptoms of hyperandrogenism. **Conclusions:** PCOS is consider one of the most common causes of hyperandrogenism and anovulation in reproductive-aged women. However, its diagnosis is not straightforward and excluding other conditions that can mimic PCOS is an essential part in the optimal management of this disorder.

Keywords: PCOS, Hyperandrogenism, Anovulation, Differential diagnosis

HYMENOPTERA VENOM IMMUNOTHERAPY: AN EFFECTIVE STRATEGY FOR MITIGATING SYSTEMIC ALLERGIC REACTIONS

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Introduction: Allergies to Hyemenoptera stings usually are a very traumatic experience for the patients as they can cause extreme reactions. The primary cause of allergies is typically the result of stings from either honeybees or Vespula spp in Central Europe. Generally, the patient is not aware of their allergy and when is found, it causes a systemic allergic reaction with symptoms of anaphylaxis. After the discovery, the patient will have to change their lifestyle since it can be a life-threatening condition, if not prepared for it. To make it more manageable now immunotherapy is available, to desensitise the patient to the venom. **Case Report:** We report a case of a 57-year-old male patient who was admitted to the Emergency Department of the Mureș Clinical County Hospital after a wasp sting. The patient is known with chronic viral hepatitis C, hepatic steatosis, obesity grade I and history of two cardiac stents. He was treated following the protocol of systemic anaphylactic shock. He was diagnosed with grade IV anaphylaxis of wasp venom. Due to the severity of the patient reaction to the venom, he was eligible for the Hymenoptera immunotherapy which was started in 2022. **Discussions :** The patient has been receiving minute doses of the venom via subcutaneous injections. The doses have been increased so that the immune tolerance is higher and therefore the systemic allergic reaction is lessened. Even though the patient presents various risk

factors, he was still able to tolerate the therapy and achieve important results. **Conclusions:** Hymenoptera Venom immunotherapy is a remarkably successful treatment for patients with extreme reactions to insect stings. Although it is a lengthy treatment, the results are impressive. In the presented case the patient has been effectively desensitised to the venom and has no major side effects to the therapy.

Keywords: Hymenoptera, anaphylaxis, immunotherapy

DIABETES DIAGNOSTIC PUZZLE: UNDERSTANDING DIABETES CLASSIFICATION CHALLENGES

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Introduction: In the dynamic landscape of diabetes diagnostics, identifying specific types remains a formidable task, especially during the initial diagnosis. This case study delves into the perplexities surrounding a patient presenting a clinical mosaic that challenges a straightforward classification. **Case Report:** We present a case of a 29-year-old female patient who was admitted at the Diabetology department of the Emergency Clinical County Hospital of Târgu Mureș. She was hospitalized due to unbalanced hyperglycemic glycemic values (over 400 mg/dL) and diabetic ketoacidosis, suggestive symptoms of metabolic decompensation such as xerostomia, polyuria, polydipsia, progressive weight loss of approximately 40 kilograms in the last 3 years. She is known with diabetes mellitus for 3 years. Despite following a biguanide therapy, the patient had unsatisfactory results with multiple hospitalizations in the past for diabetic ketoacidosis. Upon further investigations we find out that the value of HbA1C is 12.7% of Peptide C is 0.28ng/mL and of anti-GAD antibodies in the reference range. **Discussions :** This case sheds light on the nuanced challenges in precisely categorizing diabetes types at the point of diagnosis. Despite initial indicators leaning towards Type 2 Diabetes Mellitus (T2DM), such as substantial weight loss, heightened insulin demands, a sedentary lifestyle, poor nutrition, and the absence of anti-GAD antibodies and dislipidaemia, the diagnostic puzzle remained incomplete. Adding to the complexity, the absence of anti-GAD antibodies did not conclusively rule out Type 1 Diabetes Mellitus (T1DM) or Latent Autoimmune Diabetes in Adults (LADA). The recurrence of severe ketoacidosis episodes and low C-peptide levels pointed towards T1DM, deviating from the conventional features of T2DM. Another critical element in this diagnostic challenge stemmed from the insufficient reaction to Metformin, prompting the start of insulin therapy from initial period. An initiative-taking approach involves reassessing C-peptide levels and a full panel of antibodies when the patient achieves a stable metabolic state, facilitating a more informed conclusion regarding the specific type of diabetes. This nuanced perspective reflects the evolving complexity of diabetes diagnostics, urging healthcare practitioners to adopt a multifactorial approach in navigating the intricate landscape of diabetes classification. **Conclusions:** The presented case highlights the importance for accurate and ongoing evaluation in determining the type of diabetes. The difficulty in clearly delineating types at the initial diagnosis requires an integrative approach, patient education and incorporating a thorough antibody panel after metabolic stability is achieved proves pivotal for accurate assessment. Subsequent assessment of metabolic parameters contributes to a clearer picture in reaching a definitive conclusion.

Keywords: Type 1 Diabetes Mellitus, Type 2 Diabetes Mellitus, LADA, Ketoacidosis

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SARCOIDOSIS IN PEDIATRIC PATIENTS- A CHALLENGE OF DIAGNOSIS

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Introduction: Sarcoidosis is a chronic disease characterized by non-caseating granulomatous inflammation with multisystemic manifestations. It most commonly affects young adults and is very rare in children. Due to the various forms of clinical presentation, its diagnosis may represent a challenge. **Case Report:** We present the case of a 14-year-old male patient, known with medication-controlled asthma, recurrent episodes of fever associated with arthralgia, left pleural effusion, and recurrent hydrocele, admitted to the Pediatrics Department of County Emergency Clinical Hospital of Târgu Mureș. At the time of admission, the patient presented with high fever, dry cough, serous rhinorrhoea, headache, exanthema, and pain in the lower limbs. The blood culture was positive for Group G β-hemolytic Streptococcus, which was treated with antibiotics according to the antibiogram. The imaging

findings revealed a left pleural effusion, multiple axillary and mediastinal, bilateral adenopathies, splenomegaly, an enlarged thyroid gland, and bilateral hydrocele. Because of the systemic inflammatory syndrome associated with multiple thoracic adenopathies, sarcoidosis was suspected. The ACE level was measured and was increased (76,9 U/L). The thyroid function revealed normal values of FT3 and FT4, but increased values of TSH and increased anti-TPO and anti-TG antibodies titer. To rule out other causes of the inflammatory syndrome, specific antibodies for several autoimmune diseases were investigated, but the results came back negative. A thoracic punction was performed to rule out tuberculosis and the pleural effusion turned out to be a transudate. To confirm the diagnosis of sarcoidosis and to rule out a neoplasm, a biopsy from a peripheral axillary lymph node was performed but revealed only a reactive histiocytosis, common in every inflammatory condition. **Discussions :** The diagnostic criteria for sarcoidosis involve a characteristic clinical and radiological picture, pathologic evidence of non-caseating granulomas, and the exclusion of other diseases with similar findings. Even though the lymph node biopsy was negative in this case, probably due to the peripheral site of sampling, the clinical picture which included multiple thoracic lymphadenopathies, recurrent hydrocele and pleural effusion, cutaneous eruptions of the lower limbs, the association of autoimmune thyroiditis and the persistently increased values of ACE were highly suggestive of sarcoidosis, so corticosteroid therapy was initiated with favorable outcome. **Conclusions:** Sarcoidosis is present in a wide variety of clinical forms, which makes the diagnosis a real challenge, especially at pediatric ages.

Keywords: Sarcoidosis, Adenopathies, ACE, Thyroiditis

COMPREHENSIVE MANAGEMENT OF A NEWBORN WITH HETEROTAXY SYNDROME: A CASE REPORT

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Introduction: Heterotaxy syndrome is a rare congenital disorder characterized by the abnormal arrangement of the thoracoabdominal organs along the left-right axis of the body, compared with situs inversus. It has an incidence of 1 in 10.000 live births and it is frequently associated with congenital heart diseases. It is divided into right atrial isomerism with asplenia or left atrial isomerism with polysplenia. Associated intestinal rotation abnormalities need to be investigated. **Case Report:** We report the case of a male newborn, delivered by cesarean section from a full-term pregnancy in a gravida 4 para 2 Rh-negative mother, without anti-D antibodies. The newborn was hospitalized in 2024 at Târgu Mureş Emergency Clinical County Hospital. Prenatally, intrauterine suspicion of heterotaxic syndrome, single umbilical artery, and pyloric stenosis was raised, with pyloric stenosis being denied after birth. The patient weighed 3200 grams at birth and had a positive postpartum adaptation with an Apgar score of 9 at both 1 and 5 minutes. Surgical consultation recommended the initiation of enteral feeding and nasogastric tube maintenance, however high gastric residual volume and emetic episodes persisted. To evaluate the extent of the anatomical abnormalities, imaging investigations such as contrast radiography, echocardiography, transfontanellar and abdominal ultrasound, and CT angiography were conducted. Contrast radiography revealed the presence of the stomach on the right side with persistent contrast substance six hours post-administration, and no radiological signs of hypertrophic pyloric stenosis. The CT angiography highlighted foci of pulmonary consolidation in an infectious context, levocardia, abdominal situs inversus, esophagus, and gastric air distension with fluid at the fundic level, and right paravertebral splenic nodules. Cardiac and abdominal ultrasound revealed the presence of a hemiazygos vein. Surgical treatment was performed evidencing isomerism, D1 duodenal stenosis through vascular compression, and an annular pancreas, with additional intestinal malposition and malfixation. **Discussions :** Heterotaxy syndrome is associated with a variety of cardiac and extracardiac malformations. The complex condition of the patient required a multidisciplinary approach, imaging and surgery were performed to correct duodenal stenosis and gastrointestinal abnormalities which have significant consequences and require intervention. **Conclusions:** Given the complexity of diagnosing digestive malformations in newborns, a multidisciplinary approach and imaging studies are required. Prompt surgical treatment and long-term follow-up are of crucial importance in the management of these patients.

Keywords: Heterotaxy syndrome, annular pancreas, dextrogastria, duodenal stenosis

CT FINDINGS IN AN EXTREME FORM OF CONGENITAL TETRALOGY OF FALLOT ASSOCIATED WITH PULMONARY ATRESIA

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Introduction: A tetralogy of Fallot, characterized by right ventricular hypertrophy, ventricular tract obstruction, ventricular septal defect and an overriding aorta, is the most complex congenital heart defect. The tetralogy comprises of types, including one with pulmonary atresia. In a complex tetralogy, like one with pulmonary atresia, proper imaging protocols are vital in managing the defect. Advancements in imaging, particularly in cardiothoracic CT, allow for a more detailed view of vessel anatomy and functional information. **Case Report:** We present the case of a 6 day old female patient, referred for an angiography cardio-thoracic CT (GE Revolution HD device), using the feed and wrap technique and with an average heart rate of 116/minute. Results showed situs solitus, levocardia and ventricular septum defect. The CT demonstrated atrioventricular and ventriculoarterial concordance. The aortic root straddles 50% of the septum. The atrial channel is wide (5mm) with insertion in the proximal third of the pulmonary artery. The VS:VS ratio is 1:41. The root of the pulmonary artery or valve are not highlighted. **Discussions :** The CCT provides the early diagnosis of a tetralogy of Fallot, an extreme subtype with pulmonary atresia and a persistent ductus arteriosus. The protocol for diagnosis by CCT involves visualization of pulmonary artery anatomy and its relation to the right ventricle, depicting courses of the coronaries. The addition of angiography to this leads to more information regarding the right ventricular functional anatomy and outflow. Technological advances lead to easier diagnosis of even this complex ToF, with CT providing high spatial resolution and low artifacts. An adverse effect of CT is its radiation dose. **Conclusions:** This case described the importance of imaging in the diagnosis and management of the specific defect. Due to this extreme case of ToF with pulmonary atresia, angiography CCT provided the vital information needed regarding pulmonary arterial flow. This early diagnosis will lead to a better understanding of how to manage this patient's defect and lead to a better prognosis.

Keywords: Computed Tomography, Tetralogy of Fallot, Diagnostic method, Imaging

PULMONARY EMBOLISM MANAGEMENT: ACKNOWLEDGING THE RISK FACTORS

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Introduction: Pulmonary embolism (PE) is a serious condition with high mortality. Despite the knowledge of risk factors, it is still underdiagnosed and often left without preventive measurements. Major risk factors include: post-operative conditions (after major interventions in the abdominal, pelvic or orthopedic area), peripheral venous disease, pregnancy in the third trimester, malignancies, lack of mobility (especially in the elderly), heart diseases, chronic obstructive pulmonary disease (COPD), sepsis, thrombophilia, inflammatory bowel diseases, chronic dialysis, central catheters etc. **Case Report:** We present an 82-year-old male patient known with COPD, a chronic smoker, atrial fibrillation with an implantable cardioverter-defibrillator (ICD), coronary artery disease (CAD) with a percutaneous coronary intervention (PCI) for myocardial infarction, dilated cardiomyopathy (DCM), chronic heart failure (CHF) not undergoing anticoagulant treatment. He was admitted to the Pulmonology Clinic for rest dyspnea, with a SpO2 of 92%, productive cough, wheezing and chest discomfort. Radiological examination showed right middle lobe pulmonary consolidation and right pleural effusion. Under chest ultrasound guidance, a thoracentesis was performed (700 ml of serocitrin transudate liquid). Echocardiography revealed a global dilated heart, with right overload, severely depressed left ventricular systolic function with global hypokinesia (EF 20%) and severe valvular damage. Venous Doppler ultrasound of the lower limbs didn't reveal signs of deep vein thrombosis. The multiple comorbidities and the clinical appearance raised the suspicion of pulmonary thromboembolism, with a Wells criteria score of 4.5 (moderate risk). Angio-CT examination confirmed acute thrombosis of the right main pulmonary artery and right atrium, right middle lobe pneumonia and pleural effusion. Case management included treatment with anticoagulant, antibiotics, oxygen therapy, combined inhaled bronchodilators (for COPD) and transfer to the cardiology field for further treatment. **Discussions :** The case report underlines an undiagnosed pulmonary embolism through clinical-radiological suspicion and confirmed by angioCT. In a COPD patient,

dyspnoea can result from disease exacerbation and complications (thrombosis, pulmonary embolism, heart failure) within the context of systemic inflammation of COPD, advanced age, and complex cardiovascular comorbidities. **Conclusions:** Considering the age, complex respiratory and cardiovascular comorbidities, the patient must be under anticoagulants and closely followed-up. Favorable evolution was made possible by multidisciplinary team management and complex investigations. Wells criteria for PE may always be quantified in people with risk factors and clinical suspicion.

Keywords: pulmonary embolism, risk factors, prevention, anticoagulant treatment

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FROM STROKE TO SEPSIS: UNUSUAL INFECTION FROM CANINE SALIVA - A CASE STUDY

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Introduction: The most common infection following pet bites or scratches is with Pasteurella multocida, a gram-negative coccobacilli that can be seen in pairs or short chains. Penicillin is often the preferred choice for treating P. multocida infections. **Case Report:** We present the case of a 90 year-old male patient, with a known history of hypertension, an ischemic stroke and type 2 diabetes. He was brought to the Emergency Room due to a same-level fall at home where he was found in a state of confusion and agitation, with reported cognitive disturbances that had worsened over the last 15 days, reportedly causing multiple falls.The initial clinical examination revealed a deteriorated general condition with asthenia, along with a febrile septic state at 39.4°C and arterial hypotension. Open wounds were observed on his left arm, attributed to the repeated falls. Laboratory findings indicated renal insufficiency with elevated urea and creatinine, as well as decreased estimated creatinine clearance. There was also a slight increase in leukocytes, normochromic normocytic anaemia, and thrombocytopenia. An increase in inflammatory markers (CRP) and CPK, suggesting rhabdomyolysis, was also noted. A brain scan on admission showed a subcortical focal hypodensity in the left semioval centre, an aspect that was not present during the scan examination performed two years prior, the either a cause or a result of his repeated falls in the last weeks. Blood cultures isolated Gram-negative bacilli of the Pasteurella multocida type, sensitive to amoxicillin, therefore prompt initiation of appropriate antibiotic therapy with Augmentin was undertaken to treat the systemic infection. In an attempt to explain the source of contamination, a more detailed investigation was conducted, where it was discovered that the patient owned a dog as well, which reportedly licked the exposed wounds until the patient was found. **Discussions :** Despite a break in the fever curve after 48 hours, the patient's condition continued to deteriorate quickly, with worsening of the renal failure, with a notable rise in creatinine and urea, a decrease in creatinine clearance, in addition to the hyperkalemia not correcting even after the administratioln of two polarizing solutions. **Conclusions:** The family was immediately informed of the severity of the patient's clinical condition and the reserved prognosis, in the absence of any improvement. Given the age and the comorbidities of the patient, the family's wish was for no therapeutic escalation, but rather an approach of palliative care. Unfortunately, the patient passed away five days later.

Keywords: Pasteurella multocida, dog bite, sepsis, stroke

NAVIGATING COMPLEXITY: MANAGEMENT OF A PULMONARY ABSCESS WITH ATYPICAL PRESENTATION

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Introduction: Lung abscesses are severe and potentially life-threatening conditions characterised by localised suppurative processes within the lung parenchyma. They can have various etiologies, including aspiration, pneumonia, or hematogenous dissemination. Main pathogens involved include Streptococcus pneumoniae, Staphylococcus aureus, and anaerobic bacteria. **Case Report:** We present the case of a 71-year-old male patient with no significant medical history, admitted to the Pneumology ward reporting worsening dyspnea, orthopnea, and productive cough with purulent sputum over the past ten days. Upon examination, he exhibited tachycardia, polypnea, elevated temperature, and absence of vesicular murmur of the right lung. Imaging studies revealed a

voluminous right basal mass of 21x14mm, consistent with a pulmonary abscess, along with a small pleural effusion measuring 32x23mm and circumferential pericardial involvement of 10mm in thickness. Laboratory findings indicated electrolyte disturbances and elevated inflammatory markers: a CRP of 340mg/l and an LDH level of 669UI/L. NT-proBNP level was reported as 1116ng/l, and echocardiography showed severe cardiac dysfunction(ejection fraction=35%), with diffuse ventricular hypokinesia. Initial management included broad-spectrum antibiotic therapy and drainage of the abscess, where a total of 2200ml of pus was evacuated. Despite initial stabilisation, in the next days, the patient experienced worsening dyspnea and tachycardia. Furthermore, he developed oedemas of the inferior limbs, possibly explained by a compression phenomenon of the vena cava or the right atrium. Subsequent thoracoscopy confirmed the diagnosis of a pleuropulmonary empyema, and surgical drainage was initiated. Microbiological analysis revealed Candida albicans, prompting adjunctive anti-fungal therapy. However, his condition remained critical, requiring transfer to the intensive care unit, where the patient underwent ventilation using Optiflow 60l/min, resulting in the restoration of lung parenchymal apposition to the chest wall. **Discussions :** This case unveils a distinctive aspect wherein the progression of empyema led to a low cardiac output syndrome, due to deficient refill, secondary to external compression. While pulmonary abscesses typically present with respiratory symptoms, in this instance, the pericardial involvement resulted in compromised cardiac function, made evident by elevated BNP levels and echocardiography findings. **Conclusions:** His unique clinical presentation, including the absence of significant medical history and the identification of Candida albicans, a pathogen not commonly associated with pulmonary abscesses, underscores the importance of a tailored, interdisciplinary approach to assessment and management. Early recognition, appropriate antibiotic coverage, and timely surgical intervention are paramount in optimising patient outcomes.

Keywords: pulmonary abcess, compression syndrome, Candida albicans

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IDIOPATHIC CENTRAL PONTINE MYELINOLYSIS

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Introduction: Central pontine myelinolysis (CPM) is a rare neurological disease characterized by non-inflammatory demyelination in the pons. The most frequent cause of CPM is a significant shift in serum osmolality during metabolic corrections, mainly hyponatremia. **Case Report:** We present the case of a 30-year-old female with no prior medical history, no alcohol consumption, who presented with diplopia, followed after one week by a decrease in muscular strength, gait ataxia, progressive dysarthria, and swallowing difficulties. Neurological examination revealed no meningeal signs, bilateral ataxic gait possible for less than 20m, bilateral divergent strabismus, horizontal diplopia, left peripheral facial palsy, diminished gag reflexes, dysphagia, spastic quadriparesis, brisk deep tendon reflexes, bilateral Babinski sign, bilateral dysmetria, dysarthria, GCS 15 points. Brain MRI with contrast revealed bilateral ponto-mesencephalic and bilateral cerebellar demyelinating lesions with restricted diffusion on DWI, showing a "bat-wing" appearance at the level of the pons, with no contrast enhancement, suggestive of central pontine and extrapontine myelinolysis. There were no recent metabolic abnormalities in the patient's history. Paraclinical investigations, including autoimmune, metabolic, and hormonal panels, were unremarkable except for positive anti-CMV IgM antibodies. The lumbar puncture was within normal parameters, and anti-CMV IgM and IgG antibodies from the cerebrospinal fluid were negative. Treatment with corticosteroids, B vitamins, and kinesiotherapy resulted in favorable evolution. She was discharged with immunosuppressive therapy, azathioprine, which resulted in consistent improvement. At the 6-month reevaluation, the patient was able to walk unassisted, with persistent mild bilateral strabismus, mild left peripheral palsy, quadriparesis grade 4+, and mild bilateral dysmetria. The brain MRI findings remained unchanged. **Discussions :** The radiological characteristics were suggestive of the diagnosis of CPM, but the patient's clinical history revealed no significant causes for electrolyte and osmotic disturbances. **Conclusions:** We interpret the case as idiopathic CPM in the absence of any precipitating risk factors. Immunosuppressive therapy with azathioprine and corticosteroids proved to be effective.

Keywords: Idiopathic pontine myelinolysis, Hyponatremia, Demyelination

INNOVATIVE PHARMACEUTICAL APPROACH FOR TREATING PSORIASIS - A CASE REPORT

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Introduction: Psoriasis, an immune-mediated pathology is characterised by chronic inflammation due to an overactive immune system speeding the skin cell growth. Raised erythematous plaques, silvery-white scales associated with itchiness are some of the most common manifestations of psoriasis. Classification: 1.Non pustular - Psoriasis vulgaris, Guttate psoriasis, Psoriatic erythroderma, Flexural(inverse) psoriasis, Palmo-plantar psoriasis; 2.Pustular - Palmo-plantar pustular psoriasis, Generalised pustular psoriasis **Case Report:** Our patient, F, 25 years old, presented to the dermatologist's office 10 years after the debut of the disease, confirmed histologically 3 years prior to the consultation as Psoriasis vulgaris. Clinical examination has revealed extensive scaly erythematous plaques, including special area involvement (scalp psoriasis). In the last years she was recommended corticosteroid ointments and creams, UBV therapy, Methotrexate (15 mg/week that had digestive side effects), with short-time outcomes. After the clinical examination (moderate to severe form) and reviewing of the patient's medical history (inefficient prior sistemic and topical treatments), the decision was to introduce monoclonal antibodies, an anti-IL 17 blocker (Secukinumab). Clinical and biological parameters improved exponentially in a matter of months and the patient's satisfaction was achieving the status of "clear skin" that she had not been able to have in a decade. **Discussions :** Administration of monoclonal antibodies, especially anti IL-17 antibodies has shown excellent results, contrasting conventional therapy methods. Secukinumab is a fully human monoclonal antibody which selectively binds to the IL-17A, one of the key cytokines causing multiple manifestations of the psoriatic disease (skin plaque, articular and nail involvement). The ability to block IL-17, does not only improve the skin lesions rapidly, but also prevents or improves systemic comorbidities (psoriatic arthritis, depression, cardiovascular diseases, metabolic syndrome). Treatment of psoriasis patients has to be tailored to every case, taking in consideration the severity of the disease on one hand and the safety profile, the time it needs to act and longevity of the therapy on the other hand. In the follow-up visits for our patient, that took place one month after initiation, at 3 months, at 6 months and from there on, every 3 months, the severity of the disease was assessed clinically, using PASI (The Psoriasis Area and Severity Index) and DLQI (Dermatology Life Quality Index) scores and by blood work. **Conclusions:** Treatment with monoclonal antibodies has shown significant improvements and increased efficacy, especially in treating a severe form of psoriatic disease.

Keywords: chronic inflammation, monoclonal antibodies, IL-17, psoriasis

RESILIENCE: THE JOURNEY OF LEUKEMIA AND DIC IN A BREAST CARCINOMA SURVIVOR- CASE REPORT

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Introduction: This case report unfolds the intricate medical trajectory of a 68-year-old female patient, breast carcinoma survivor, initially treated with radiotherapy and surgery in 2021, whose course deviated unexpectedly. **Case Report:** Admitted on 31/10/2023, the patient presented with altered general status, dyspnea, and disseminated ecchymoses. Laboratory findings unveiled severe anemia(Hb: 4.8g/dL), severe thrombocytopenia(Tr: 15x103/µl), and leukocytosis(Leu: 30.03x103/µL) . The peripheral smear showed 87% atypical cells, microgranular morphological promyelocytes with an immunophenotype consistent with promyelocytes and the molecular analysis confirmed the PML-RARA fusion gene. All these findings suggest the diagnosis of acute promyelocytic leukemia. Moreover, the coagulation test results-fibrinogen(105.31 mg/dL),PT(QT:13.5s, Prothrombin Activity:69.6%, INR:1.20), and APTT(21.5s)-indicate a disseminated intravascular coagulation syndrome. All these factors necessitated the immediate initiation of treatment: Vesanoid(tretionin) associated with dexamethasone, fresh frozen plasma, leukocyte-depleted red blood cell concentrate and platelet concentrate. After three doses of Vesanoid, the patient developed dyspnea, edema, and pulmonary infiltrates, leading to the discontinuation of Vesanoid treatment for 48h. Imaging assessments revealed basal pneumonia, but it is highly likely that the pulmonary infiltrates are stasis-related and due to the differentiation syndrome. Upon resumption of Vesanoid treatment, the dexamethasone dosage was increased, and Zavedos(idarubicin) was administered on days 2, 4, 6,

and 8, along with three doses of Hydrea(hydroxycarbamide) and Accofil(filgrastin). Furthermore, the patient vehemently requested discharge after one week of hospitalization, and on the 13th day of effective treatment, she was discharged against medical advice, being convinced by psychiatric specialists to rehospitalize herself only after another two weeks. **Discussions :** Throughout the treatment with fresh frozen plasma, red blood cell concentrate and platelet concentrate, the patient's fragile condition improved, with a remarkable evolution of blood count test and coagulation test values, yielding the following results: Hb: 10.6g/dL, Tr: 322x103/µL, Leu: 6.72x103/µL on 21/02/2024 and fibrinogen: 390.56mg/dL, PT(QT: 12.1s, Prothrombin Activity: 96.5%, INR: 1.01), APTT: 21.5s on 08/01/2024. **Conclusions:** Despite multifaceted challenges, the patient achieved hematologic remission through a meticulously tailored treatment approach. The acknowledgment and strategic response to DIC played a decisive role in the patient's survival, underscoring the imperative of vigilant monitoring and adaptability in managing such complex cases. Additionally, I would like to emphasize the patient's psychological struggle, evident in her persistent desire for discharge, underscoring the significance of a holistic approach to patient care.

Keywords: leukemia, disseminated intravascular coagullation, breast carcinoma

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DECIPHERING THE ENIGMA OF MASSIVE LOCALIZED LYMPHEDEMA

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Introduction: Massive localized lymphedema (MLL) is an uncommon benign soft tissue lesion characterized by the abnormal accumulation of lymphatic fluid and swelling, typically occurring in the thighs or abdominal region. MLL, often referred to as a tumefactive pseudosarcoma, primarily affects morbidly obese adults and was initially described in 1998 by Farshid and Weiss. **Case Report:** We present the case of a 58-year-old male who presented to the Surgery Department with two perineal masses, which appeared approximately 8 years ago but exhibited a notable increase in size in recent months. Upon measurement, the dimensions of these two tumors were 200x170mm and 115x100mm, respectively. Microscopic examination revealed numerous dilated lymphatic capillaries surrounded by a perivascular lymphoplasmacytic inflammatory infiltrate. Extensive fibrotic areas were observed in the deep dermis. Numerous spindle-shaped cells with hyperchromatic nuclei, resembling reactive fibroblasts, were noted. Occasional pleomorphic cells, including multinucleated giant cells of "floret-like" appearance, were identified, with no evidence of mitotic activity. Although atypical mitoses were absent and no features suggestive of malignancy were identified, a definitive exclusion of well-differentiated liposarcoma cannot be made without further immunohistochemical analysis, such as MDM2, CDK4 or RB1. Taking into consideration both the histological features and patient's comorbidities (Hypertension, dyslipidemia and obesity) we decided for this particular benign condition. **Discussions :** MLL predominantly affects obese and hypothyroid individuals, with mechanisms that are not fully understood. The present patient, with a BMI of 32.87, falls into the obese class 1 category. A plausible theory in this context involves tissue infiltration by numerous adipocytes, leading to compression of lymphatic capillaries. A much more accurate theory, insufficiently known, would be the association of the condition with the mixed dyslipidemia suffered by the present patient. In patients with mixed dyslipidemia, characterized by elevated levels of cholesterol and triglycerides, lipoproteins circulate in higher concentrations in the bloodstream. These lipoproteins can infiltrate and accumulate within lymphatic vessel walls, causing structural damage and impairing their ability to transport lymphatic fluid efficiently. Moreover, inflammatory mediators associated with dyslipidemia can exacerbate lymphatic vessel dysfunction by promoting inflammation and fibrosis within the vessels. **Conclusions:** Despite significant advancements in understanding MLL since its discovery, diagnostic challenges persist due to its resemblance to malignant conditions. With the increasing global prevalence of obesity, investigating this particular pathology becomes highly relevant. Understanding the pathophysiology and microscopic appearance of MLL is crucial for improving diagnostic accuracy and developing targeted therapeutic interventions.

Keywords: Diagnostic Complexity, Lymphedema, Obesity, Pathophysiological Insights

NAVIGATING THE COMPLEX LANDSCAPE OF STAGE 4 PULMONARY ADENOCARCINOMA: A CAPTIVATING FIVE-YEAR SAGA OF TARGETED CARE AND VIGILANT FOLLOW-UP

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Introduction: Over the past ten years, there has been a groundbreaking transformation in the approach to non-small cell lung cancer (NSCLC), marked by significant advancements in screening, diagnosis, and treatment. The progress in systemic therapy has been largely propelled by the emergence of molecularly targeted drugs, immune checkpoint inhibitors, and anti-angiogenic agents, resulting in markedly enhanced patient prognosis. **Case Report:** This case report presents the comprehensive management of a 55-year-old man diagnosed with Stage 4 non-small-cell pulmonary adenocarcinoma with no driver mutations (EGFR-; ALK-). The patient's clinical presentation revealed a challenging scenario with cT4, N0, and pM1 (costal arch X-12mm) staging. The initial therapeutic approach, somewhat contrary to current treatment guidelines, involved upfront surgery, aimed at addressing the primary tumor and the costal metastasis. Following surgery, the patient received antalgic thoracic palliative radiotherapy. After the initial interventions, the treatment strategy incorporated a complex approach. Six total cycles of Gemcitabine 1250mg/m2 and Carboplatin 5AUC chemotherapy were administered to target potential metastatic lesions, followed by a switch to immunotherapy. The patient underwent a sustained five-year course of Nivolumab 240mg q2w (133C), reflecting a surprising sustained disease control. This prolonged immunotherapy regimen aimed to help the patient's immune system to combat cancer cells with enhanced precision. **Discussions :** Current treatment paradigm for NSCLC suggests a stratified approach, based on the disease stage and molecular profile. Early-stage cases are typically managed by surgical intervention or stereotactic radiotherapy, followed by chemotherapy and/or immunotherapy, as indicated by the high-risk features or PD-L1 positivity, respectively. Locoregionally advanced cases benefit from a combination of radio-chemotherapy, chemotherapy and immunotherapy. Metastatic disease is usually treated with upfront chemo-immunotherapy, reserving radiotherapy for palliation of symptoms. If the disease exhibits driver mutations (EGFR/ALK/K-ras etc.), adjuvant targeted therapy takes first place after the local treatment. **Conclusions:** This case stands to challenge, in a way, the current treatment paradigm, underlining the importance of proper local tumor control on one side, and the sequencing of systemic treatment, on the other side.

Keywords: NSCLC, oncology, radiotherapy

COCAINE INTOXICATION IN CHILDREN

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Introduction: Cocaine is a powerful addictive stimulant drug. It is mainly used illegally and recreationally. Its abuse can lead to a chronic intoxication, being a major worldwide health problem. **Case Report:** A 6-year-old male presents at the Miercurea Ciuc emergency room with ataxia, hypogastric pain, fever and dysuria. CT scan showed chronic bilateral maxillary sinusitis. The drug test performed, had positive result for cocaine. He immediately was transferred to the Emergency room at the Spitalul Judetan of Târgu Mures. The anamnesis was difficult to perform because of contradictory information given by the mother. Physical examination revealed mydriasis, anisocoria, positive Babinsky sign and agitation. The second CT scan showed a hyper dense lesion at the left part of the brain with a dimension of 8/9.6mm AP/LL. Taking in consideration the hypogastric pain and the dysuria that the patient presented, an ultrasound was performed at the bladder level showing a bladder globe with severe urinary retention. **Discussions :** Cocaine intoxication is known for the critical consequences on the entire body, especially the neurological system. Our patient started a multi-drug treatment. The neurology department prescribed him a vitamin therapy with vitamin B1- B6 and C, for boosting the immune system. Pediatric department advised him a treatment with pain killers for the acute hypogastric and bladder pain, hydration and the insertion of a catheter (10FR) for the acute retention. Both Neurology and Infective disease departments recommend an antibiotic for treating the chronic bilateral maxillary sinusitis. At the end, NPI confirmed him the ongoing treatment plus glucocorticoids for the anti-inflammatory effects. Social surveillance, police involvement and child safeguard are recommended. **Conclusions:** After the twelve days multi-drug treatment, the patient started to walk individually

and presented no pain. He also showed a notable evolution in the neurological aspect with no ataxia as I mentioned before, anisocoria, mydriasis and Babinsky sign. The bladder regained its original activity with no urinary retention and dysuria. For concluding, unfortunately nowadays also the safety of the children is affected by the choices of the adults. Cocaine intoxication keeps showing a high mortality rate by being, in the 2022, the most used drug in Romania from the adolescents and not.

Keywords: Cocaine, Chronic intoxication, Neurological complications

NELSON SYNDROME AFTER BILATERAL ADRENALECTOMY FOR CUSHING DISEASE: A CASE REPORT

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Introduction: The Nelson syndrome is an endocrine condition that occurs in patients with Cushing's disease who have undergone bilateral adrenalectomy for therapeutic purposes. The mechanism of this pathology is represented by the loss of negative feedback at the level of the hypothalamic-pituitary-adrenal axis (postoperatively, cortisol levels decrease which leads to increased production of CRH and ACTH). Nelson syndrome typically occurs within the first 5 years after surgical intervention. **Case Report:** We present the case of a 52-year-old patient, known to have adrenal insufficiency post-bilateral adrenalectomy for Cushing's disease, currently under substitutive treatment with Hydrocortisone and Astonin. The decision for this therapeutic approach was based on the severity of the clinical status (grade III arterial hypertension and severe hypokalemia), contraindication for pituitary surgical intervention from the neurosurgeon, and lack of response to steroidogenesis inhibitors treatment. At the follow up visit, one year after the surgery, the patient showed improved clinical status, but persistent moderate intensity headache on the right hemicranium and visual disturbances. On physical examination, grade I obesity, generalized skin hyperpigmentation, red-violet stretch marks on bilateral flanks, and gynecomastia were noted.Cerebral MRI in T2 sequency revealed an increase in the size of the pituitary tumor, with invasion into bilateral cavernous sinuses, suprasellar extension, and compression of the optic chiasm. Ophtalmologic evaluation revealed temporal hemianopsia in the left eye and superior temporal quadrantanopia in the right eye. Laboratory examinations showed normal cortisol levels, but markedly elevated ACTH (>2000 pg/ml). Considering the increasing ACTH levels, generalized skin hyperpigmentation, and dimensional evolution of the pituitary adenoma, the diagnosis of Nelson syndrome was confirmed and Gamma-Knife radiotherapy was indicated. **Discussions :** Although Nelson syndrome is a rare entity, it should be considered in all patients with Cushing's disease who are to undergo bilateral adrenalectomy. Prophylactic pituitary Gamma Knife radiosurgery reduces the likelihood of this syndrome, but studies show that it may also have certain beneficial outcomes when applied postoperatively. **Conclusions:** This case highlights the importance of Nelson syndrome prophylaxis in the case of bilateral adrenalectomy. Untreated or treatment-resistant Cushing's disease can be life-threatening both through its complications (severe hypertension, severe osteoporosis, steroid-induced diabetes mellitus, increased risk of thromboembolism) and through the development of Nelson syndrome.

Keywords: Nelson syndrome, bilateral adrenalectomy, Cushing disease, Gamma Knife

ELECTRICAL SHOCK INDUCED ATRIAL ELECTRICAL DISORDERS

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Introduction: Electrical injuries can result in anything from minor skin burns to life-threatening damage to internal organs. Cardiac damage frequently carries a vitally important prognosis in these cases. After electrical injury, arrhythmias and myocardial injury are the principal complications. Conduction disorders and ventricular fibrillation are the most common pathologies but atrial fibrillation is rare especially at low voltage: <1kV -low voltage, >1kV-high voltage. **Case Report:** We present the case of a 63-year-old male patient without known personal pathological history except a right bundle branch block (RBBB), presenting to the cardiology outpatient clinic with palpitations and elevated pulse rate, which he became aware of after discharge from the hospital. It should be mentioned that the patient presented to the emergency department following electrical injuries at low -voltage. Wound treatment had been performed for a few days in the surgical ward which after he was discharged. Following a cardiology consultation, including clinical and paraclinical examination of the patient, he is diagnosed

with atrial fibrillation with a frequency of 130 beats per minute, likely post electrocution. The recommended treatment consisted of frequency control, anticoagulants and re-assessment over one month. Amiodarone has been added to control the conversion to sinus rhythm which succeed after two weeks, but after two months the patient relapsed into fibrillation. **Discussions :** The induction of the atrial fibrillation by the electrical shock is the most probable hypothesis but we do not have any certainty without a pre-electrocution ECG which hadn't been done before to the patient. **Conclusions:** Although atrial fibrillation post electrocution at low voltage is relatively rare, in the case of this patient there is a high possibility of a causal relationship between the two events due to the fact that the patient did not present any pre-electrocution symptoms, these have already occured in the first days after his discharge from hospital.

Keywords: atrial fibrillation, low voltage, electrical injuries

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TAKAYASU'S ARTERITIS: A CASE REPORT

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Introduction: Takayasu's arteritis is a type of vasculitis that affects large blood vessels, primarily involving the aorta and its main branches. This condition is marked by granulomatous inflammation. It is predominantly found in women, with a female-to-male ratio of 9:1 and is more common in young Asian women under 40 years of age. Patients with this condition may have fever, joint pain, angina pectoris, syncope and weakened or absent pulses in the arms. Therefore, Takayasu's arteritis is sometimes referred to as "pulseless disease." **Case Report:** We report the case of a 30-year-old female patient who had a history of chronic arterial hypertension when she was brought to the hospital. After experiencing a brief ischemic event, an ultrasound revealed that the patient had carotid stenosis. For further evaluation, the patient was referred for a carotid and thoraco-abdominal CT angiogram. The brachiocephalic truncus showed mild parietal thickening extending circumferentially to the right common carotid artery. Tubular stenosis of the right common carotid artery with a reduction of the vascular lumen of approximately 50% and a wall thickening of approximately 5.5 mm, extended from its emergence to the origin of the right external carotid artery. Circumferential thickening of the aortic wall affected the ascending aorta from the level of the sino-tubular junction to the left common carotid artery, with a maximum wall thickness of approximately 5 mm at the level of the ascending aorta. The descending thoraco-abdominal aorta was also affected from the level of the T9 vertebra to the origin of the inferior mesenteric artery, with a maximum wall thickness of approximately 4 mm adjacent to the L3 vertebra. Overall, the abdominal aorta exhibited a significantly uneven diameter, with narrower and more enlarged areas alternating. Both renal arteries and the celiac trunk had a narrowing of the ostia of up to 50% due to the wall thickening. **Discussions :** CT plays a vital role in diagnosing and monitoring of Takayasu arteritis. It provides detailed images of affected vessels, revealing wall thickening, stenosis, and inflammation. CT angiography, in particular, offers a non-invasive way to visualize both the extent and severity of vascular involvement, guiding treatment decisions and helping assess the disease progression and response to therapy. **Conclusions:** Our study presents a case of Takayasu's disease, focusing on elucidating the significant contribution of imaging modalities in its diagnostic process.

Keywords: Takayasu's arteritis, CT Angiography, Arteritis diagnosis

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UNVEILING THE ENIGMA: A CASE REPORT ON NEUROMYELITIS OPTICA

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Introduction: Neuromyelitis Optica, or Devic's Disease, is an autoimmune disease of the Central Nervous System that involves acute inflammation of the optic nerve and spinal cord. The disease is idiopathic, as it does not have a cause, but studies show that more than 80% are caused by IgG autoantibodies against aquaporin-4. A smaller number of cases, around 10-14%, are caused by IgG antibodies against MOG(Myelin Oligodendrocyte Glycoprotein). The rest, unknown and likely heterogenous. **Case Report:** A 51-year-old male presented with sudden onset bilateral visual impairment, accompanied by nausea, vomiting, and hiccups. His medical history was unremarkable for any autoimmune disorders, but he reported recent episodes of transient sensory disturbances and mild gait instability. Neurological examination revealed; bilaterally reduced visual acuity (20/200), optic disc

swelling, and sixth cranial nerve palsy. Magnetic resonance imaging(MRI) of the brain showed bilateral optic nerve enhancement and lesions involving the area postrema. Lumbar puncture demonstrated elevated cerebrospinal fluid protein levels. Serum testing revealed positive aquaporin-4 antibodies. The patient was diagnosed with Neuromyelitis Optica Spectrum Disorder(NMOSD) with bilateral optic neuritis and Area Postrema Syndrome. He was initiated on high-dose intravenous corticosteroid therapy followed by plasma exchange. Initial improvement in symptoms, particularly nausea and hiccups, was noted. However, despite treatment, visual acuity only marginally improved to 20/100 in both eyes. Despite initial modest gains with corticosteroid therapy, the patient experienced a relapse after three months characterized by spastic triparesis. MRI of the spine revealed longitudinally extensive transverse myelitis. He was started on a combination therapy of corticosteroids and immunosuppressants, but visual acuity remained stable. The patient is currently undergoing rehabilitation for motor deficits, with ophthalmological follow-up for visual rehabilitation strategies. **Discussions :** The presence of Neuromyelitis Optica is often associated with other autoimmune diseases such as Sjögren's Syndrome, with Anti-SSA(Anti-Sjögren's-Syndrome-Related Antigen A) and ANA(Antinuclear) antibodies positive in this patient. Rheumatologic consultation considered the positive serum samples as cross-reactions to the underlying disease. However, it is still being debated whether Neuromyelitis Optica is a neurological complication of Sjögren's Syndrome or if they coexist. **Conclusions:** There is no cure for Neuromyelitis Optica but the symptomatology is manageable. Unfortunately, most patients are left with visual or limb impairment. The goal of treatment is to reduce relapses, which can be defined as new or worsening neurological symptoms lasting for at least 24h without an alternative explanation, which ultimately, can leave the patients with more deficits. The treatment of choice is intravenous high dose corticosteroids.

Keywords: #NeuromyelitisOptica, #Aquaporin-4Antibodies, #AreaPostremaSyndrome, #OpticNeuritis

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GERMINOMA MIMICKING EOSINOPHILIC ESOPHAGITIS: A CASE REPORT OF DIAGNOSTIC CHALLENGES AND SUCCESSFUL MANAGEMENT

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Introduction: The germinoma originates in the primordial germ cells and is typically localized within the central nervous system, especially in the pineal or suprasellar regions. The clinical manifestations include non-specific symptoms like headaches, nausea, vomiting and visual disturbances. However, the involvement of the nervous system may lead to certain endocrine abnormalities such as diabetes insipidus, growth hormone deficiency, and hypogonadism. **Case Report:** This case report outlines the clinical trajectory of a 16-year-old male diagnosed with metastatic hypothalamic germinoma. The patient initially presented with dysphagia, nausea, vomiting, and fainting, initially raising suspicions of eosinophilic esophagitis. The patient then visited the Emergency Room multiple times over a three-month period due to persistent dysphagia and nausea which led to significant weight loss (>10% of his initial weight), therefore a nasogastric tube was placed. Biopsy findings of esophagitis with eosinophil presence were inconclusive, prompting further gastroenterological investigations. An extended panel of tests revealed acute adrenal insufficiency (the cortisol level was measured at 94, below the normal range of 140), necessitating referral to endocrinology. Endocrine evaluation unveiled panhypopituitarism and central diabetes insipidus, treated with hormone supplementation. The brain CT scan, performed a month after initial presentation, indicated intracranial lesions involving various regions, including the hypothalamus and the pituitary gland. The spinal MRI revealed nodular intradural lesions. Despite two unsuccessful surgical attempts, a successful biopsy, almost six months after the first appearance of the symptoms, confirmed a malignant tumor highly suggestive of germinoma. Treatment involved chemotherapy, craniospinal radiotherapy, and hormone replacement therapy for associated endocrine dysfunctions. **Discussions :** The complexity of this case lies in its multi-symptomatic presentation and diagnostic challenges, necessitating extensive evaluation and interdisciplinary collaboration. Managing the patient required acquiring a delicate balance between addressing the malignancy and treating the associated complications, including endocrine dysfunctions and nutritional deficits. **Conclusions:** This case underscores the significance of a systematic approach in managing complex oncological and endocrine disorders in pediatric patients. Despite the severity of the condition, timely diagnosis and aggressive treatment led to remission and stabilization. Long-term follow-up is essential for disease monitoring and overall patient well-being, highlighting the resilience of both the patient and healthcare team in navigating the challenges posed by metastatic hypothalamic

germinoma.

Keywords: germinoma, metastatic tumor, panhypopituitarism

POLYENDOCRINOPATHY TYPE 2: THE CLINICAL JOURNEY OF MULTISYSTEM MANAGEMENT

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Introduction: Polyendocrinopathy type 2 (APS-2) is a rare autoimmune disorder characterized by the coexistence of Addison's disease and autoimmune thyroiditis. Management presents challenges due to the multifaceted nature of the disease, requiring comprehensive evaluation and individualized treatment approaches. This is a case highlighting the management of a patient with APS-2. **Case Report:** A 53-year-old female patient under observation for Addison's disease and post-irradiation hypothyroidism secondary to Basedow's disease, discovered 5 years prior, fitting within the framework of APS-2, presented for her check-up reporting nausea with epigastric pain and acid reflux. She has a history of positive anti-parietal-cell antibodies (APCA) which led to a gastroscopy one year prior, revealing gastritis due to Helicobacter pylori which was eradicated. For the next eighteen months, the patient experienced stable electrolyte balance and glycemia;however, she reported persistent gastrointestinal symptoms, leading to investigations for suspected autoimmune gastritis. Multiple anti-bodies tests were conducted, but only the APCA levels continued to increase to a maximum of 320. Therefore, a requested gastroenterology consult advised ruling out iron deficiency and chronic inflammatory syndrome, which were not confirmed, but a thrombocytosis treatment was started (platelets:600G/L), prompting the introduction of antiplatelet medication and a dose of 50000UI/month of vitamin D due to a severe deficiency. The digestive issues were effectively managed using hydrocortisone injections when the patient experienced adrenal decompensations. On the endocrinological plan, the adrenal insufficiency is controlled with hydrocortisone and fludrocortisone due to low cortisol levels (<10mmol/L), the plasmatic renin is elevated (94mUI/L), and the TSH, controlled with levothyroxine, has been fluctuating although remaining within manageable limits, with a maximum value of 5.1mU/L. Over the follow-up period, no treatment adjustments were needed except for the additional hydrocortisone injections and introduction of antiplatelet medication. However, due to multiple decompensations, the patient was advised to undergo panels of tests every three months instead of every year. **Discussions :** The management of APS-2 requires a multidisciplinary approach to address the complexities of multiple endocrine disorders. Challenges arise from the autoimmune mechanisms, necessitating hormone replacement therapy and monitoring for complications. In this case, the patient's gastrointestinal symptoms, thrombocytosis and vitamin D deficiency underscored the need for comprehensive evaluation and interventions to optimize her quality of life. **Conclusions:** Polyendocrinopathy type2 presents significant management challenges due to the systemic autoimmune complications that may arise.Comprehensive evaluation and individualized treatment are essential for optimizing patient care and addressing comorbidities. Research is warranted to elucidate the mechanisms driving the progression of polyendocrinopathies.

Keywords: polyendocrinopathy, Addison's disease, Basedow disease

A RARE CASE OF ACUTE MYELOID LEUKEMIA WITH CENTRAL NERVOUS SYSTEM INVOLVEMENT

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Introduction: Acute myeloid leukemia is characterized by the proliferation of immature cells, called blasts, and it is frequently associated with an ineffective hematopoiesis. Extramedullary disease, such as central nervous sistem involvent, granulocytic sarcoma or leukemia cutis is rare. The nucleophosmin 1(NPM1) gene is one of the most commonly mutated genes in AML and it is associated with a favorable prognosis. **Case Report:** A 73-year-old female was admitted in December 2023 to the hematology department presenting marked leukocytosis with

monocytosis, thrombocytopenia and mild anemia. The peripheral blood smear showed 64% blasts. A bone marrow aspiration and immunophenotying was performed which confirmed the diagnosis of acute monoblastic leukemia. Molecular biology showed no mutations in FMS-like tyrosine kinase 3 (FLT3) ITD or TKD genes but a mutation in the NPM1 gene was positive. Caryotying was not available, due to national holidays. Due the marked leukocytosis, cytoreductive treatment with hydroxyurea was initiated. On the same day, the patient presented acute respiratory failure and fever and she was transferred to the intensive care unit department. A head and chest CT scan revealed cortico-subcortical atrophy and signs of pulmonary infection for which antibiotherapy and antifungal therapy was initiated. After a few days the patients was transferred to back the hematology department where azacitidine, a hypomethylating agent and venetoclax, a BCL-2 inhibitor (B-cell lymphoma 2) was initiated. After one cycle the complete blood count was almost normalized but the patient complained about a generalized, erythematous, slightly itchy rash. A skin biopsy was performed and was positive for leukemia cutis. In February 2024, the patient presented with left hemiparesis. A CSF (cerebrospinal fluid) smear and skull CT were performed, which indicated the presence of blastic meningitis. Intrathecal administration of methotrexate, cytarabine and corticosteroids failed to improve the neurological symptoms. A second line treatment with etoposide and idarubicine was started but the patient died within weeks. **Discussions :** SNC involvent in AML is an uncommon phenomena. The presence of both skin and SNC involvement, simultaneous, suggests a very agreessive disease. **Conclusions:** AML with mutated NPM1 is ussualy associated with a favorable prognosis. However, in this case the disease was very aggresssive. Despite advancements in therapeutic regimens, the prognosis remains very poor in the elderly population.

Keywords: acute monocytic leukemia, NPM1 mutation, blastic meningitis, leukemids

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A FAMILIAL CASE OF MEN2A: EVERYTHING STARTED FROM HYPERTENSIVE EPISODES

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Introduction: Multiple endocrine neoplasia (MEN2) is a rare autosomal-dominant hereditary cancer syndrome. It is clinically characterized by the presence of medullary thyroid carcinoma (MTC), pheochromocytoma and primary hyperparathyroidism and at least two of the classical clinical features are required for the diagnosis of MEN 2A. **Case Report:** A 34-year-old female patient presented at the cardiologist accusing hypertensive episodes associated with flush, headache, palpitations. Lab results showed an increased level of calcitonin and a high level of metanephrines. Also, at an adrenal ultrasonography were found some masses so a CT was performed. At a thyroid ultrasonography, calcified nodules were found. With these results, the diagnosis of MEN2 syndrome was suspected. Genetic testing for mutations for RET gene was performed on patient and all first-degree relatives. Genetic testing identified the presence of the pathogenic heterozygous mutation of codon 634 at the level of exon 11. The patient's children were also tested and are negative for the mutation, instead the patient's mother has the RET mutation. After diagnosis, the patient underwent total thyroidectomy with right lateral-cervical lymphadenectomy for medullary thyroid carcinoma, partial parathyroidectomy and bilateral adrenalectomy. The histopathological examination of the operative parts revealed the presence of a pheochromocytoma on the right adrenal gland (PASS score = 3) and three pheochromocytomas on the left adrenal gland (PASS score = 0). Following the surgical intervention, the patient received substitutive treatment with levothyroxine 100 micrograms, hydrocortisone 25 mg and fludrocortisonum 0,1 mg. The patient's mother was diagnosed with medullary thyroid carcinoma and primary hyperparathyroidism. For these conditions, the patient underwent total thyroidectomy with lymphadenectomy and subtotal parathyroidectomy. After the intervention, patient received substitution with levothyroxine. **Discussions :** The particularity of this case lies in the fact it was diagnosed beginning from hypertensive episodes and ending with a diagnosis of MEN2A at a mother and daughter. It is well known that rarely pheochromocytoma may be the first manifestation of MEN2. **Conclusions:** Multiple endocrine neoplasia type 2A (MEN2A) is a rare syndrome that presents as medullary thyroid carcinoma, pheochromocytoma, and hyperparathyroidism. Different mutations lead to different levels of activation and MEN2 is therefore characterized by a strong genotype-phenotype correlation.

Keywords: MEN2A, medullary thyroid carcinoma, pheochromocytoma

THE IMPORTANCE OF IMAGING IN HEAD INJURIES

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Introduction: Epidural hematoma is oftentimes a result of traumatic head injuries, being a potentially life-threatening situation for the patient. It is characterised by an accumulation of blood between the dura mater and the skull, therefore timely recognition and intervention are crucial in order to avoid further neurological complications. **Case Report:** An 11 year old male patient presents to the Pediatric Emergency Unit after having suffered a fall in the School's Sports Hall, 8 hours prior. He manifested a good general state, afebrile, with no signs of organomegaly or signs of meningeal inflammation and a Glasgow Coma Score of 15. The patient claims a vomiting episode after the fall; left periorbital bruising was also noted. Following the laboratory testing, a mild leukocytosis with neutrophilia was revealed, with other results being within normal ranges. A native CT scan uncovered a 19mm thick left fronto-basal epidural hematoma, extending 50mm with an associated mass effect. No other intracranial abnormalities were noticed. He was promptly admitted to the Neurosurgery department for conservatory management. The patient was treated with antispasmodic, analgesic and antiemetic medication, alongside rehydration and electrolytic rebalancing. **Discussions :** Due to his symptoms having been relieved, the patient was discharged after 4 days without undergoing a surgical intervention. He was instructed to avoid physical effort, harsh weather conditions and neurotoxic substances, with a follow-up consult after 30 days. The follow-up consult revealed the epidural hematoma has resolved. **Conclusions:** This case highlights how, even head injuries caused by falling from one's height level on a wooden floor can have serious outcomes that must be treated accordingly to avoid catastrophic complications. Through the aid of imaging, the hematoma was swiftly uncovered and treatment ensued rapidly.

Keywords: emergency, epidural hematoma, head trauma, pediatric

IMMUNOHISTOCHEMICAL PROFILING IN THE DIFFERENTIAL DIAGNOSIS OF ENDOMETRIAL ADENOCARCINOMA

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Introduction: Endometrioid-type endometrial adenocarcinoma is a malignant epithelial tumor originating from the single-layered glandular epithelium of the endometrium. Its predominant feature consists of the formation of malignant glands, similar to those found in normal endometrium but with reduced cellular differentiation. The tumor cells typically exhibit pronounced cellular atypia, characterized by significant morphological changes in the nuclei and cytoplasm. The nuclei may be hyperchromatic, pleomorphic, and exhibit an increased nucleo-cytoplasmic ratio. **Case Report:** A 73-year-old patient presented to the hospital with minimal vaginal bleeding. She returned to the hospital after 2 weeks, and upon paraclinical investigations, a tumoral formation was observed in the myometrium, raising suspicion of uterine sarcoma. After appropriate investigations, surgical intervention was performed, revealing adhesion syndrome between the posterior uterine wall and the large intestine and between the adnexa and the large intestine during abdominal cavity exploration. Total hysterectomy with bilateral salpingo-oophorectomy and pelvic lymphadenectomy was decided upon and specimens were sent for histopathological examination. Histopathological examination revealed a whitish tumoral formation in the myometrium invading the isthmus and cervix. Microscopically, the uterus exhibited tumor proliferation with mostly solid architecture, focal pseudoglandular areas with central necrosis, and sarcomatoid differentiation infiltrating the endometrial mucosa and over half the thickness of the myometrium. The histopathological analysis diagnosed a poorly differentiated endometrioid-type endometrial adenocarcinoma, necessitating differential diagnosis with uterine leiomyosarcoma and cervical adenocarcinoma. Immunohistochemical tests were positive for CK AE1-AE3, MNF116, CK7, and VIMENTIN markers. Negative CK5/6 marker excluded cervical adenocarcinoma pathology, and negative actin excluded uterine leiomyosarcoma. **Discussions :** The particularity of this case lies in the importance of immunohistochemical examination in establishing a definitive diagnosis. The patient presented with a tumor invading both the cervix and the myometrium, thus immunohistochemical tests provided certainty in diagnosing poorly differentiated endometrioid-type endometrial adenocarcinoma, eliminating the possibility of uterine leiomyosarcoma and cervical adenocarcinoma. **Conclusions:** Poorly differentiated endometrioid-type endometrial

adenocarcinomas are complex pathologies requiring a comprehensive set of tests for a definitive diagnosis and initiation of appropriate treatment.

Keywords: endometrial adenocarcinoma, uterine sarcoma, cervical adenocarcinoma, immunohistochemical tests

COMPLEXITY OF DIAGNOSING PROSTATIC TUBERCULOSIS

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Introduction: Tuberculosis is a chronic infectious disease caused by the bacterium Mycobacterium tuberculosis, which is inhaled into the lungs where, in the primary stage, acts by forming the tuberculoid granuloma consisting of clusters of histiocytes (Langhans cells and epithelioid cells), surrounded by a lymphocytic crown, with the center composed of a zone of caseous necrosis. Reactivation of the bacillary reservoir at the site of post-tuberculous scarring and the formation of cavities are known as secondary tuberculosis. In this case, cavities can erode either a lymphatic vessel, resulting in disseminated pulmonary tuberculosis, or a blood vessel, resulting in systemic dissemination. Due to blood contamination, bacilli can spread anywhere in the body and thus can lead to distant seeding, including in the prostate. Genitourinary tuberculosis occurs in over 15% of patients with pulmonary tuberculosis, with a higher incidence in developing countries (including Romania). **Case Report:** A 54-year-old male with a history of appendectomy and type II diabetes presents with intermittent macroscopic hematuria and affected general condition to the Urology Clinic. Initially, clinical, imaging, and histopathological examinations (biopsy taken prior to surgery) reveal a common type urothelial carcinoma, infiltrating into the lamina propria, located on the lateral and posterior walls of the bladder. Surgical treatment is initiated, and the patient is regularly monitored. Approximately one year after surgery, a CT pulmonary examination identifies bilateral pulmonary nodules without signs of progression of the bladder tumor. The following year, the patient returns to the clinic complaining of weak, interrupted urinary stream, polyuria, nocturia, and slightly affected general condition. Prostatic adenocarcinoma is suspected, and prostate biopsy is initiated for histopathological and immunohistochemical evaluation. Results reveal fragments of granulomatous lesions with epithelioid reaction and constant presence of Langhans multinucleated giant cells, typical for tuberculosis, alongside central caseous necrosis and moderate/marked lymphocytic inflammatory reaction around the granulomatous lesions. Thus, the presence of prostatic tuberculosis is confirmed, and appropriate treatment is initiated. **Discussions :** Prostatic tuberculosis is rare and can be difficult to diagnose due to nonspecific clinical presentation and symptoms similar to other prostatic conditions. In this case, biopsy and subsequent histopathological examination were essential to differentiate between primary malignant prostate tumor, locoregional invasion of urothelial bladder carcinoma, considering the patient's history, or other non-tumor lesions as was the case here. **Conclusions:** This case emphasises the importance of detailed investigations and multidisciplinary approach in the diagnosis and management of prostatic tuberculosis.

Keywords: Prostate, Tuberculosis, Biopsy, Histopathological Examination

DIAGNOSTIC CHALLENGES AND MANAGEMENT OF THORACIC PLASMACYTOMA

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Introduction: Plasmacytoma represents a malignant tumor of plasma cells, most commonly developing in soft tissues or bones. Skeletal forms usually have other occult tumors and frequently disseminate to multiple myeloma within 5-10 years. Soft tissue forms usually occur in the upper respiratory tract, rarely disseminate, and are cured by resection. Most cases produce paraproteinemia. **Case Report:** We present the case of a 50-year-old man admitted to the Thoracic Surgery Department of the Emergency County Clinical Hospital Sibiu for evaluation of a tumor on the right thoracic wall. During admission, other conditions such as acromegaly, central adrenal insufficiency, post-cholecystectomy syndrome, and dysmetabolic cardiomyopathy were noted. Additionally, tissue sampling was performed for biopsy and histopathological examination. Histopathological examination revealed a solid tumor proliferation, with features of small and medium-sized cells, round, relatively monotonous, surrounded by incomplete fibro-hyaline septa, forming pseudorosettes and trabeculae, with a mitotic rate of 5 mitoses/10 HPF. Absence of necrosis, angiolymphatic invasion, or perineural infiltration was observed in all examined sections. These morphological characteristics raised suspicion of initial lymphoproliferation. An immunohistochemical profile

was used with antibodies against CK AE1/3, Bcl2, CD3, CD5, CD10, CD20, CD23, CD30, DBA44, CyD1, Vimentin, Actin, TTF1, and Ki67. All lymphocytic markers were negative, excluding lymphocytic origin of the tumor. Additionally, negativity for CK7 and TTF1 markers excluded pulmonary adenocarcinoma metastasis, while negativity of CK AE1/3 marker excluded mesothelioma. A second immunohistochemical profile included antibodies against CD168, HMB45, S100, Chromogranin, and Synaptophysin. Negative HMB45 and S100 markers excluded malignant melanoma metastasis, negative Chromogranin and Synaptophysin excluded neuroendocrine carcinoma metastasis, while tumor positivity for CD168 marker definitively established the diagnosis of plasmacytoma. Multiple myeloma and plasmacytoma diagnoses were subsequently confirmed through additional hematological examinations and laboratory analyses. **Discussions :** In the presented case, the treatment of choice consisted of polychemotherapy and radiotherapy. The patient underwent repeated investigations for managing complications and side effects of the disease and treatment. Careful monitoring and proper management of multiple conditions were essential for adequate care and optimizing his prognosis. **Conclusions:** The histopathological examination, coupled with immunohistochemical profiling, served as the cornerstone in confirming the diagnosis of plasmacytoma and excluding other pathologies in this case. This emphasises their pivotal role in achieving accurate diagnoses and guiding therapeutic strategies for thoracic plasmacytoma.

Keywords: Plasmacytoma, Histopathological Examination, Immunohistochemical Profiling, lymphoproliferation

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UNUSUAL HODGKIN LYMPHOMA IN A PATIENT WITH CELIAC DISEASE: A CASE REPORT

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Introduction: Celiac disease is an immune-mediated enteropathy triggered by gluten in genetically susceptible patients. The clinical presentation is extremely variable; patients may have severe gastrointestinal symptoms and malabsorption, extraintestinal symptoms or have no symptoms at all. Celiac disease can be complicated by malnutrition, other autoimmune diseases, refractoriness to treatment, and gastrointestinal tumors. **Case Report:** An 80-year-old woman known with celiac disease for 4 years and hepatitis B on treatment with Entecavir presented in 2022 for reevaluation. A CT scan identified hepatic hilar and celiac adenopathies with short axis of maximum 15 mm, respectively a portocaval one of 19 mm. An echo-endoscopy was performed and a fine-needle aspiration (FNA) from hepatic hilar lymph nodes was collected. After the examination of the tissue, a suspicion of an indolent B-cell lymphoma was raised. For the confirmation, the examination was repeated, and the results showed no signs of malignancy, describing the adenopathy as a reactive one. After a year (2023) the patient presented again for reevaluation. A new CT scan was recommended, showing slightly smaller adenopathies than the previous examination (hepatic hilar and celiac adenopathies with short axis of maximum 13 mm and the portocaval one of 15 mm). A new echo-endoscopy was performed, completed with FNA from hepatic hilar lymph nodes and multiple duodenal biopsies. The histopathological results showed chronic duodenitis Marsh 1 and lymphatic tissue compatible with nodular sclerosing Hodgkin lymphoma (giant cells with extensive eosinophilic cytoplasm, mononucleated or binucleated, with huge, round, inclusion-like nucleoli on a lymphocytic and fibrotic background; the abnormal cells were positive for CD30, CD15 and Pax-5). The patient was next referred to hematology for more investigations and management. **Discussions :** Celiac disease is a relatively frequent pathology (1,4% of the population), 3-11% of the patients developing malignant complications because of immune dysregulation. The most common malignancies are enteropathy-associated T-cell lymphoma and small bowel adenocarcinoma, but others are also possible, such as carcinoma of the tongue, colorectal carcinoma, B-cell lymphoma and even Hodgkin lymphoma. Particularly in this case, the celiac disease was diagnosed at an advanced age, and it was complicated by a less common malignancy for these patients, Hodgkin lymphoma, and not a T-cell lymphoma as usual. **Conclusions:** Malignant complications can occur in patients with celiac disease because of immune disturbances, and even if Hodgkin lymphoma is not one of the most common complications, it should be considered in a patient with persistent abdominal adenopathies.

Keywords: Celiac disease, Complication, Hodgkin lymphoma, Malignancy

DUODENAL DIVERTICULUM: A POSSIBLE ANSWER FOR A CASE OF REOCCURRING CHOLESTASIS

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Introduction: Duodenal diverticula are sacciform herniations of the intestinal wall, most commonly acquired and associated with old age. They are mostly located periampulary and although usually asymptomatic, can lead to complications in rare cases, such as obstructive jaundice, but also small bowel obstruction, bleeding or acute diverticulitis. **Case Report:** An 80-year-old female patient with a history of cardiovascular disease and biliary lithiasis presents with a reoccurrence of cholestatic syndrome. Her history begins in October 2023 when she first presented with abdominal discomfort and unexplained weight loss. At that point, there were signs of cholestasis (hyperbilirubinemia with increased direct bilirubin (BR) of 0,79 mg/dL, increased Alkaline Phosfatase(ALP) of 404 U/L and GammaGT (GGT) of 722 U/L). Cholangio-MRI was performed, revealing dilation of the common bile duct (CBD) of 15 mm and of the intrahepatic bile ducts (IHBD) along with a duodenal periampulary diverticulum of 27 mm in diameter. Unable to reveal any lithiasis or tumoral cause for the obstruction, ERCP was performed which was able to remove a gallstone of approximatively 10 mm in diameter. On second admission in February 2024, the patient had another episode of cholestasis this time with a total BR of 2,95mg/dL and direct BR of 2,2mg/dL and on CT: CBD=12mm in diameter, aerobilia, multiple hypodense hypocaptating nodular lesions (6mm) suggestive of abscesses (some of them with hydroaeric levels) in both hepatic lobes. The case was interpreted as acute cholagitis. Considering the history, an endoscopic ultrasound was performed which revealed the same initial diverticulum extending towards the hepatic hillum and compressing the CBD, which was the most plausible explanation. Further management included antibiotic therapy (Ceftriaxone and Metronidazole), hemocultures (negative) and surgical consultation (which evaluated the patient as unfit for surgical diverticulum resection). **Discussions :** Periampulary diverticula can predispose to obstructive jaundice either by direct obstruction of the CBD in the absence of lithiasis (a rare clinical entity known as Lemmel's syndrome) or by hindering normal biliary drainage and raising the likelihood for cholelithiasis. Due to the patient's age and limited information about the diverticulum, it is unclear which is the case. Additionally, considering the negative hemocultures (which can also rule out sepsis) and CBD compression, the hepatic abscesses are probably a result of repeated episodes of acute cholangitis. **Conclusions:** Although rarely symptomatic, duodenal periampulary diverticula can be a cause of gastrointestinal complications to be considered among the list of differential diagnoses.

Keywords: diverticulum, duodenum, cholestasis, hepatic abscess

SYNCHRONOUS BREAST AND LUNG CANCER IN LI-FRAUMENI SYNDROME

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Introduction: Li-Fraumeni syndrome is a rare, autosomal dominant disorder characterized by mutations in the TP53 tumor suppressor gene. Affected individuals have an increased risk of developing a wide range of cancers at a young age, including sarcomas, breast cancer, leukemia and adrenal gland tumors. **Case Report:** We report the case of a 35 year old woman with an oncological history of a recurrent malignant Phyllodes tumor on the right side. The patient had surgical interventions in 2015, 2016 and 2021, the last one being a mastectomy and a lobectomy of the inferior left pulmonary lobe (for the resection of a pulmonary adenocarcinoma). The somatic molecular testing revealed an allelic load of 70% for the TP53 Arg306Ter variant and 35% for the EGFR Leu858Arg variant. The patient followed adjuvant treatment with carboplatin, pemetrexed and 3rd generation EGFR inhibitors (Osimertinib). Family history revealed that her father died at 32 years old with bronchopulmonary neoplasm and her maternal grandfather at 67 years old with bladder neoplasm. This pointed towards hereditary oncology syndrome so a molecular genetic test was recommended to accurately identify the mutation. The result was positive for a pathogenic mutation at the level of the TP53 gene: c.916C>T (p.Arg306*), that led to the final diagnosis of Li-Fraumeni syndrome. **Discussions :** Prophylaxis is very important in Li-Fraumeni syndrome, as well as avoiding any carcinogenic factors: smoking, radiation exposure, alcohol consumption, high fat diet. Given the fact that the pathogenic mutation in the TP53 gene is linked to a 100% risk of developing a breast neoplasm until the age of 60, considering the patient's age and the already existing lesion, a bilateral mastectomy with

reconstruction is advised. For the prophylaxis of the other specific cancers in Li-Fraumeni syndrome, a multidisciplinary clinical exam, full body MRI and dermatological consult are performed annually, and a colonoscopy once every 2 years. CTs and radiotherapy are contraindicated, as they increase the risk of malignancy. Moreover, the patient has a 2 years old son who tested positive for the mutation; he will need screening. **Conclusions:** This case underscores the importance of recognizing Li-Fraumeni syndrome in individuals with a history of early-onset cancers or family history suggestive of hereditary cancer syndromes. Despite its rarity, it poses significant challenges in cancer prevention and management, necessitating a multidisciplinary approach involving oncology, genetics and supportive care services.

Keywords: Li-Fraumeni, cancer, hereditary, prophylaxis

WINNING THE GAME OF HIS LIFE

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Introduction: Sudden cardiac death (SCD) accounts for more than 249,538 deaths per year in Europe. In young patients, the most common cause of sudden cardiac death is a fatal arrhythmia, usually in the context of a structurally normal heart.Myocarditis, aninflammation of the myocardium, commonly seen after viral infection, can alsoinduce arrhythmias, through direct effect on cardiomyocytes that leads to electrical instability and ion channel impairment. **Case Report:** The following report presents the case of a 27-years old male patient who sustained cardiac arrest (CA) through Ventricular fibrillation (VFib) during a football game. He had a history of sustained Monomorph Ventricular Tachycardia in 2023, following Myocarditis after a COVID-19 infection, for which he underwent radiofrequency ablation (RFA), but refused ICD implantation. The night before the cardiac arrest, the patient had anepisode of nausea, followed bysyncope. During the game, he suddenly collapsed on the field, being unresponsive and not breathing. Bystanders immediately recognized the CA and started CPR. He was found by the first responders sustainingVFib for which he received advanced CPR, 5semi-automated defibrilations of 200J while a physician was dispatched to the scene. After 12 minutes, when the medical team arrived, the patient was still in cardiac arrest, for which another 2 defibrilations were performed, antiarrhythmic medication was given, advanced airway management was performed and after a total of 16 minutes, the patient presented Return of Spontaneous Circulation (ROSC).After stabilization, the patient was transferred at the Clinical Emergency County Hospital from Târgu-Mureș. Echocardiogram was performed in the emergency department, revealed global hypokinesia and the 12-lead ECG pointed out sinustachycardia (110bpm) with no ST segment modifications. The patient underwent coronarography which was normal and was admitted in the cardiac ICU, sustaining a full recovery 24 hours after the event. After a recovery period, the patient was implanted with an ICD for sudden cardiac death (SCD) prophylaxis and was discharged. **Discussions :** The current case underlines the importance of CA recognition and early initiation of CPR, followed by correct advanced management, as well as the one of secondary prevention.The particularity of this case is a young, previously healthy patient that sustained CA as a complication of myocarditis following a viral infection. **Conclusions:** Sudden Cardiac Death due to malignant arrhythmias are an increasing phenomenon, associated to post-viral myocarditis.TheICD implantationis the main tool for secondary SCD prophylaxis.

Keywords: COVID-19, ICD, Myocarditis, VentricularFibrillation

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COMPREHENSIVE MANAGEMENT OF BRONCHOPULMONARY NEOPLASM: A CASE REPORT HIGHLIGHTING DIAGNOSIS, TREATMENT OPTIONS, AND INTERDISCIPLINARY APPROACHES

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Introduction: Bronchopulmonary neoplasm (BPN) represents a prevalent pathology today due to the increasing risk factors such as smoking, atmospheric and occupational pollution and the aging population. The diagnosis of BPN requires thorough investigations for confirmation and staging, as well as interdisciplinary management. **Case Report:** A 72-year-old male, great smoker, with a 30 pack-year history and occupational exposure to glass dust, was admitted to the Pulmonology Clinic for exertional dyspnea, minor hemoptysis, and fatigue for atelectasis

and suspicion of BPN. Oxygen saturation (SpO2) was 93%, and spirometry revealed a moderate obstructive syndrome (FVC 82%, FEV1 69%, FEV1/FVC 65.7%, MEF50% CVF 43%). Chest auscultation revealed bronchial rales at the right base. In this clinical context, a bronchoscopy was performed, detecting an organized fibrous clot obstructing the entire bronchus of the middle lobe (LM). The clot was removed, partially aerating the LM. Antibiotic, anti-inflammatory, hemostatic, and combined bronchodilator inhaler treatment (for COPD) improved the patient's condition significantly. The Koch bacillus examination (from bronchial aspirate/biopsy) was negative. Histopathological examination revealed an epidermoid BPN, and after contrast CT head-pelvis, a preliminary clinical-radiological staging of stage IIB - T2, N1, M0 was possible. The case was referred to an oncology committee (oncology specialist, thoracic surgeon, histopathologist, radiologist, pulmonologist) for the final decision on optimal treatment: surgical intervention and/or chemotherapy/radiotherapy, depending on the complete clinical-radiological and histopathological staging. EBUS (endobronchial ultrasound) was recommended in the Pulmonology Clinic in Cluj for accurate preoperative evaluation of mediastinal lymph nodes. **Discussions :** Contrast-enhanced CT allowed staging BPN in a surgically compatible stage (IIB). EBUS enabled detailed investigation of mediastinal lymph nodes and preoperative differential diagnosis between operable stage IIB (T2, N1, M0) and inoperable stage IIIB (T2, N3, M0 with involvement of contralateral mediastinal nodes to the primary tumor). **Conclusions:** Investigating BPN is laborious, involving a) confirmation through clinical examination and bronchoscopy with bronchial biopsy; b) rigorous staging through transbronchial mediastinal lymph node biopsy via EBUS for N (Nodes) investigation, and chest CT with contrast, +/- cranial MRI, or PET-CT for detecting locoregional tumor invasion and metastases. Conducting accurate investigations and decisions through an oncology committee ensures targeted treatment adapted to the actual stage (surgical + oncological treatment in early/medium stages or chemotherapy/radiotherapy/immunotherapy + palliative care in more advanced stages)

Keywords: bronchopulmonary neoplasm, bronchoscopy, thrombus, interdisciplinarity

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PATHOLOGICAL PERSPECTIVE OF HPV-ASSOCIATED KERATINIZING INFILTRATIVE SQUAMOUS CARCINOMA OF THE CERVIX: A CASE STUDY

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Introduction: Histopathological examinations are necessary to comprehend the intricacy of cancer, especially squamous cell carcinoma and its association to the human papillomavirus (HPV). This abstract presents a detailed examination of a 48-year-old patient with keratinizing infiltrative squamous carcinoma linked to HPV. **Case Report:** A 48-year-old patient came to the Gynecology Clinic for pelvic pain, abundant vaginal secretions a nd bleedings. A cervical punch biopsy was performed on the patient, and the obtained specimens un derwent careful microscopic examination. The biopsy fragments revealed a fragment of non-kera tinized stratified squamous epithelium with normal histological appearance and a tumor prolifera tion indicative of moderately differentiated keratinizing infiltrative squamous carcinoma (G2). The morphological features encompassed pleomorphism, necrosis, desmoplastic reaction, and an in flammatory infiltrate. Immunohistochemistry utilizing the p16, Anti-p16 (E6H4), Mouse Mono clonal Primary Antibody, VENTANA was done, revealing a diffuse and intensely positive reaction within the tumor proliferation. This study seeks to shed light on the molecular and clinical charac teristics of the detected carcinoma by examining its histopathological and immunohistochemical features. **Discussions :** Microscopic analysis showed distinct characteristics of the tumor cells, emphasizing pleomorphism with indistinct cell borders, scant cytoplasm, large irregular nuclei with visible nucleoli, and frequent mitotic figures. Stromal features included necrotic areas, desmoplastic reaction, congested blood vessels, hematic infiltrate, and an abundant chronic lymphocytic inflammatory infiltrate. The absence of lymphovascular and perineural invasion was noticeable, accompanied by the formation of keratin pearls. Immunohistochemistry with p16 highlighted a strong association with HPV. A careful follow-up is recommended, including frequent imaging, HPV testing and patient assessments. The absence of lymph node infiltration is used as an indication of good prognosis. However, careful monitoring is recommended. **Conclusions:** This research article describes in detail the histopathological and immunohistochemical analysis of a 48-year-old patient's HPV-related keratinizing infiltrative squamous carcinoma. The features that have been discovered, such p16 positivity and the absence of invasion indicators, improve our awareness of the tumor's properties and their applicability to diagnosis and treatment. The findings emphasize the significance of histopathology analyses for unraveling the intricate nature of squamous carcinoma associated with HPV.

Keywords: Squamous carcinoma, HPV, P16, Biopsy

SUPPURATIVE OTITIS MEDIA ASSOCIATED WITH HAEMOPHILUS INFLUENZAE: CASE REPORT AND MANAGEMENT STRATEGIES

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Introduction: Otitis media is an ear inflammation which is characterized by excruciating pain, fever, a sensation of fullness and fluid drainage from the middle ear. Inflammation of the middle ear that follows a pathogenic microorganism infection is known as otitis syndrome. If the infection affects the ear canal, it can be external; if it affects the eardrum area, it can be medial. The main etiological agents involved in otitis media are bacteria such as Staphylococcus aureus, Streptococcus pyogenes, Streptococcus pneumoniae, Moraxella catarrhalis and Haemophilus influenzae. **Case Report:** We present the case of a 4-month-old patient, who presented to the Targu Mures Emergency Department with fever (39.2 □□□ and otorrhea of the left ear. The mother reports that the symptoms started the day before. Along with the clinical examinations of the patient, purulent discharge from the ear was taken and sent to the laboratory for microbiological diagnostic. The sample was inoculated on the usual culture media and then incubated for 24 hours at 37 □□□ On Chocolate agar, the appearance of small, transparent, pearl-like, S-type colonies was observed. On blood agar, the appearance of the satellitism phenomenon was observed, as the colonies were only growing in the presence of the staphylococcal strains of the newborn's integumentary flora. The microscopic examination of the culture showed polymorphic gram-negative cocobacilli, suggestive of Haemophilus spp. For further identification to the level of species, the growth factor test was performed, along with automatic identification using Vitek 2 Compact (BioMerieux). Both tests identified the bacteria as Haemophilus influenzae. **Discussions :** Antibiotic susceptibility testing for Haemophilus influenzae should be performed on Mueller Hinton agar with 5% horse blood (a media used for highly fastidious bacteria) and incubated in CO2 atmosphere. In our case, the bacteria showed susceptibility to the usual antibiotics tested for these types of strains, but a lot of the strains are known to have resistance to routinely used antibiotics, such as amoxicillin. The antibiotics for treating such infections should be chosen carefully, as it can easily become a cronic infection if not treated properly. **Conclusions:** Diagnosing and treating Haemophilus influenzae otitis media can be challenging. In the current case, as the strain was susceptible to most antibiotics, the infection was treated by giving both systemic treatment (Cefuroxime) and topical ear drops with Ciprofloxacin. The evolution of the patient under treatment was favorable, towards healing.

Keywords: Chocolate agar, Haemophilus influenzae, Otitis media

PLURIFACTORIAL ANEMIA: EXPLORING THE MULTIFACETED CHALLENGES IN HOSPITALIZED CASES

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Introduction: Anaemia is a condition where the blood's hemoglobin levels drop below the normal range for age and sex due to decreased production or increased destruction of hemoglobin, and can be inherited or acquired. **Case Report:** There is a case of a 42-year-old female patient with ethanolic liver cirrhosis who is hospitalized for investigation of an anemic syndrome.. Objective on admission: pale-yellowish complexion, dehydrated mucous membranes, distended abdomen due to ascites, pain on deep palpation in the flanks. Abdominal ultrasound showed liver cirrhosis and splenomegaly. Laboratory indicates increased ALT, AST, GGT, FAL, and LFTs, and LFTs show HgB=9 g/dl, decreased serum, VEM and all cell lines, with unreactive reticulocytes. On EDI nothing pathological is detected, and EDS shows portal-hypertensive gastropathy and esophageal varices. Menorrhagia is excluded by history. Direct Coombs test is performed, with positive result. The diagnosis of multifactorial anaemia is made: iron deficiency, haemolytic and secondary to hypersplenism. Treatment is started with Medrol according to haematological indications, Venofer to correct the deficiency and Propanolol as primary prophylaxis in variceal bleeding. During hospitalization the patient becomes septic with increasing CRP and PCT.Corticosteroids must be stopped, empirical antibiotics administered and the cause investigated. Diagnostic paracentesis, uroculture, chest X-ray, all negative, and blood cultures are taken.The evolution of the patient is unfavourable, HgB decreasing to 4.8 g/dl, K=2.9 mmol/l, PCT still reactive.Blood transfusion is considered. Blood is collected for determination of group, Rh and autoantibody presence. The laboratory result indicates a poor match between the available blood

and the patient's blood due to anti-erythrocyte antibodies. It is decided to transfuse with 2U CER, with premedication with 200mg HHC+10mg Desloratadine distributed in two doses and secondary prophylaxis with 100mg HHC+5mg Desloratadine.The patient is monitored throughout the transfusion, following hemodynamic parameters and diuresis.No adverse reactions are reported.Post-transfusion Hgb returns to 9.2 g/dl with normalization of K.Blood culture positivity forces us to change antibiotic therapy, with favourable results in terms of inflammatory syndrome.The patient's condition at discharge was stable with a Hgb close to normal. **Discussions :** Systemic corticosteroid therapy is used as first-line therapy in many forms of haemolytic anaemia.However, it can precipitate infections, in which case the benefits must be weighed against adverse reactions.Splenectomy is used as a last-line therapeutic method in haemolytic anaemia **Conclusions:** Transfusion in patients with haemolytic anaemia is difficult to perform because of the increased risk of adverse reactions. However, these patients may require lifelong transfusion.

Keywords: Corticotherapy, Transfusion, Haemolytic, Splenectomy

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LI-FRAUMENI SYNDROME - A GENETIC DISORDER PREDISPOSING TO MULTIPLE MALIGNANCIES: CASE REPORT

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Introduction: Li-Fraumeni Syndrome(LFS) is a rare condition with autosomal dominant inheritance associated with abnormalities in *TP53*, a tumor suppressor gene. The cancer risk in individuals with LFS is ≥70% for men and ≥90% for women. Adrenocortical carcinomas, breast cancer(BC), central nervous system tumors, osteosarcomas, soft-tissue sarcomas and leukemias are the main types of cancers LFS patients are predisposed to develop. Tumors, especially soft tissue sarcomas, can affect patients even during childhood. **Case Report:** We report a 34-years-old female patient presented with a lump in the upper outer quadrant of her right breast. She had positive family history, suggestive for a hereditary cancer syndrome: her mother and aunt were previously diagnosed with BC, the maternal cousin had another type of cancer (unspecified). The genetic testing was negative for *BRCA1/BRCA2.* The imagistic investigations discovered a tumor-like mass, its aspect suggesting malignancy. The biopsy confirmed an invasive ductal carcinoma (T1N1aM0), Luminal B, HER-, PR-, ER+. Given the high Ki67 levels (80%), neoadjuvant chemotherapy was performed. In October 2023, she had a unilateral modified radical mastectomy. Genetic testing was recommended because of her young age and family history and next-generation sequencing(NGS) for 125 pathogenic genes was performed. A pathogenic mutation in the 7th exon of the *TP53* gene was identified: *NM_000546.6-TP53:c.733G>A(p.Gly245Ser)*. The patient was diagnosed with LFS. Following breast cancer treatment, regular health checkups and cancer screening were recommended for the patient. Radiotherapy couldn't be done because of her predisposition of developing numerous types of malignancies. Furthermore, genetic testing was recommended for all first and second degree relatives, given the autosomal dominant inheritance pattern. **Discussions :** As no curative treatment is available at the moment, proper patient management involves adapting screening protocols, with regular clinical examinations, mammograms, colonoscopies and whole-body MRIs. The patient has a 4-year-old daughter and a 1-year-old son. Both of them were tested for the *TP53* mutation, but the results are still being processed. In Romania, the genetic testing for this mutation isn't reimbursed by the government, so it means a big financial effort. The diagnostic had an important psychological impact for the patient because of its severity on her health and also because she could've passed the mutation to her children. **Conclusions:** In conclusion, LFS diagnosis comes with important physical and psychological challenges for both the patient and their family members and can significantly influence the quality of life of those affected.

Keywords: breast cancer, invasive ductal carcinoma, TP53 gene, Li-Fraumeni Syndrome

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THE EXCEPTION PROVES THE RULE – A RARE CASE OF LIVER CIRRHOSIS

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Introduction: Cirrhosis of the liver is a condition in which normal liver tissue is replaced by scar tissue, resulting in partial or total loss of function. **Case Report:** We present a case of a 35-year-old female patient with a history of diabetes and Raynaud's phenomenon presenting for non-specific symptoms of asthenia and indigestion. Objective

examination reveals mild right hypochondrial tenderness, gambit edema, distended abdomen and hyperpigmented limbs. Initial biochemistry shows microcytic anaemia, hepatocytolysis, elevated GGT, hypoalbuminemia and elevated bilirubin, INR, creatinine. Abdominal ultrasound shows a liver with irregular contour and micronodular structure, splenomegaly, and ascites. This leads to the diagnosis of Child Pugh B cirrhosis of the liver. Treatable causes are excluded and the serological panel for autoimmune hepatitis is established, with ANA, anti-centromere antibodies and anti-muscle antibodies being positive, AMA being non-reactive. EDS shows erythema of the gastric mucosa, grade II oesophageal varices and parietal thickening of the oesophagus. Biopsy fragments collected during gastroscopy identify the presence of fibrosis and lymphocytic infiltrate in the oesophagus, as well as portal-hypertensive gastropathy. The complexity of the case requires a rheumatological consultation, which recommends anti-Scl70 antibodies assay and biopsy of modified skin tissue, which shows hyperkeratosis and acanthosis in the epidermis, and increased amount of collagen in the dermis. Further investigations are performed and the diagnosis of liver cirrhosis secondary to autoimmune hepatitis combined with systemic sclerosis is made and treatment for both pathologies is started. Furosemide+Spironolactone, Propanolol, hepatoprotectants, Omeprazole and Sucralfate are administered for liver disease and its complications and corticosteroids are initiated. Given the impaired renal function since the diagnosis, it is decided to associate a conversion enzyme inhibitor and to monitor throughout the treatment, considering the use of Cyclophosphamide in case of degradation. The patient's response to treatment is favorable, with stationary clinical and paraclinical evolution. **Discussions :** Since cirrhosis of the liver is no longer an uncommon pathology, the less common causes of cirrhosis of the liver must be taken into account, especially when it starts in young people. Although damage to the gastrointestinal tract is reported in 90% of cases of systemic sclerosis, the liver is generally rarely affected. Patients with systemic sclerosis should also be monitored for other autoimmune diseases. **Conclusions:** Systemic sclerosis mainly affects females. There is no treatment that stops or slows down collagen production specific to systemic sclerosis. However, corticosteroid therapy may slow the thickening of the skin and cyclophosphamide may slow kidney damage.

Keywords: biopsy, sclerosis, collagen, corticosteroid

GERIATRIC ACUTE LIVER FAILURE: NAVIGATING MULTIFACETED CARDIOMETABOLIC AND GASTROINTESTINAL CHALLENGES

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Introduction: Celiac trunk stenosis (CTS) can be determined by atherosclerosis, local invasion of malignant processes, or, more often, by median arcuate ligament syndrome, and it can be easily misdiagnosed due to non-specific gastrointestinal symptoms. **Case Report:** A 76-year-old patient with a history of arterial hypertension complicated with chronic nephropathy, atrial fibrillation (orally anticoagulated), coronary artery disease (previous myocardial infarction), and relapsing Takotsubo cardiomyopathy presents to our clinic with multiple episodes of nausea, vomiting, diffuse abdominal pain, inappetence, and a persistent severe headache that started about one week prior to admission. The patient reported a recent episode of respiratory infection treated with antibiotics and symptomatic drugs (including increased doses of acetaminophen). Ultrasonography reveals minimal biliary duct dilatation in a cholecystectomied patient (without clinical or biological signs of acute pancreatitis) and renal microlithiasis. Upper GI endoscopy detects multiple esophageal degenerative lesions and inferior venous congestion, as well as gastric mucosal changes (nodular, hyperemic appearance). Preliminary tests show elevated serum transaminases (x10) and cholestasis enzymes, a creatinine increase (x3), and minimally elevated amylase. Due to clinical, biological, and ultrasonographic changes, we performed an abdominal/pelvic CT scan that excluded biliary microlithiasis passage and detected atherosclerotic changes of the abdominal aorta and at the origin of the celiac trunk that may explain the episodes of increased liver enzymes (caused by hypoperfusion). During hospitalization, the patient presented a progressive improvement in symptoms and laboratory findings under treatment with antispasmodic drugs, amino acids, PPI, gastric protective agents, diuretics, and chronic medication. **Discussions :** Even though the diagnosis of CTS can be challenging due to its varied clinical presentations and non-specific laboratory findings, a multidisciplinary approach involving imaging modalities such as abdominal and pelvic CT scans is essential for an accurate diagnosis. In order to improve patient outcomes, the management of CTS should focus on addressing underlying vascular disease (even when surgical treatment is not an option), symptomatic relief of symptoms, and optimization of cardiovascular risk factors. **Conclusions:** This case emphasizes the significance of considering celiac trunk stenosis as a possible etiology for non-specific gastrointestinal symptoms, particularly in elderly patients with multiple comorbidities.

Keywords: celiac trunk stenosis, abdominal pain, acute liver failure

THE „OFF" SIDE OF PARKINSON'S DISEASE: A CASE REPORT

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Introduction: Parkinson's disease is a relatively common progressive movement disorder caused by the degeneration of dopamine-releasing neurons in the substantia nigria, patients experiencing tremor at rest, bradykinesia or hypokinesia, limb stiffness and postural instability. Osteoporosis is a skeletal disorder in which low bone density and deterioration of the bone architecture lead to bone fragility and high susceptibility to fractures. In this case, we seek to highlight the challenges that arise while managing the treatment for both of these illnesses, but also the recovery. **Case Report:** A 60-year-old male presents at a physical medicine and rehabilitation specialist, complaining of lumbar pain with irradiation to the right hip and knee. In addition, he accuses bradykinesia, lower limbs paresthesia, walking difficulties (the patient uses a cane), negative hyperthymia. He is known to have Parkinson's disease stage IV (Hoehn & Yahr) for 14 years, right artificial knee joint, left knee arthritis secondary to trauma, osteoporosis and an old fracture of the hip bone. The on-and-off phenomenon is also present, the off phenomenon taking up 50% of the day, for which he was given a Duopa pump. The lumbar spine MRI showed the presence of a degenerative disk disease at L2-L4 level, a T12 compaction fracture (50%). As treatment, he was prescribed Tramadol, Acetaminofen, Diclofenac, vitamin D, besides his chronic medication for Parkinson, with a positive outcome regarding pain level and on-off phenomenon. In addition, physiotherapy (ultrasound therapy, short wave diathermy, laser therapy) and specific exercises were recommended, with good results for the patient's independence level. **Discussions :** The characteristic gait of the patients with Parkinson's disease, as well as the significant postural instability were most likely the cause of the degenerative disk disease, the knee arthritis and the fractures of the hip bone and T12 vertebrae. Studies also showed that Parkinson's can lead to low bone density which, besides the old age, could have been the cause for the osteoporosis. Seeing how the physical rehabilitation of these patients can be quite a challenge, we propose deep brain stimulation, especially because of the severe impairment in mobility and quality of life. **Conclusions:** Parkinson's disease can affect many of the body's systems and patients' quality of life, which is why maintaining patients' independence is essential on medium and long term.

Keywords: Parkinson's, the off phenomenon, osteoporosis, rehabilitation

COMPLETE REMISSION OF VEIN OF GALEN ANEURYSMAL MALFORMATION: A CASE REPORT

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Introduction: Vein of Galen aneurysmal malformation (VGAM) has an incidence of 1% of all fetal arteriovenous vascular abnormalities. The first-choice method for the diagnosis is two-dimensional real-time ultrasound (US), and the Doppler mode confirming the vascular nature of the malformation. Two methods that are currently used for treatment are: endovascular transarterial embolization and direct surgical removal. The mortality remains around 50%. **Case Report:** A 24-year-old woman was referred to the Prenatal Diagnosis Unit of the Emergency University County Hospital of Craiova at 34 weeks and 5 days of gestation, with a suspicion of fetal cerebral vascular malformation. All clinical data and fetal US parameters were within normal limits, except for the presence of a hypoechogenic structure containing a turbulent arterial and venous flow. The structure was located in the midline of the posterior part of the third ventricle. The dilatation of the straight sinus was observed. Three-dimensional multiplanar images were instrumental in localizing the abnormal structure. A magnetic resonance imaging (MRI) exam was performed at 36 weeks, confirming the sonographic findings and no associated brain parenchyma abnormalities. Despite the isolated aspect of the malformation, the parents were informed about the poor postnatal outcome. At 37 weeks and 3 days a female neonate was delivered by cesarean section, with an Apgar score of 9 and weighing 2720 g. The transfontanellar US confirmed the diagnosis of VGAM. Mild cardiac complications and pulmonary hypertension were noted during the immediate postnatal period. At 3 months of age, a subsequent MRI revealed partial closure of the aneurysm and a normal ventricular system. At 32 months, an angio-MRI showed an

entirely normal intracerebral vascular system. Currently, the child is completely asymptomatic at 5 years of age, having normal neurodevelopment. **Discussions :** The VGAM is characterized by the presence of numerous arteriovenous shunts linking the vein of Galen with the choroidal arteries. This pathology occurs more in male than female patients. The possible consequences of the pathology are the "vascular steal effect" and the overload of the right heart. Heart failure and cerebral damage are commonly seen. This congenital malformation has usually an ominous outcome. **Conclusions:** To our knowledge, this is the first documented case of spontaneous, complete remission of the VGAM, occurring at approximately 32 months post-birth. The single medical intervention was careful monitoring.

Keywords: Vein of Galen aneurysmal malformation, Doppler technique, complete spontaneous remission

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TRACHEOBRONCHOPATHIA OSTEOCHONDROPLASTICA COMPLICATED BY BRONCHOPULMONARY NEOPLASM

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Introduction: Tracheobronchopathia osteochondroplastica (TPO) is considered a rare benign condition initially asymptomatic but gradually progressive with potential complications such as recurrent infections, atelectasis, hemoptysis, dysphonia, and obstructive ventilatory dysfunction. **Case Report:** An 81-year-old male, former smoker, with a history of partially controlled chronic bronchial asthma, frequent respiratory infections, aortic atheromatosis, and prostatic adenoma, was admitted for chronic productive cough, wheezing, 15 kg weight loss in one month, marked fatigue, and hemoptoic sputum. Spirometry revealed obstructive ventilatory dysfunction in small airways (Tiffneau Index 67%, MEF50 50%). Chest X-ray described a left-sided pneumonic appearance that did not resolve after initial antibiotic and anti-inflammatory treatment. Thoracic CT raised suspicion of a proliferative formation in the left upper lobe and a hepatic nodule. Blood tests revealed iron-deficiency anemia and lymphopenia. In this clinical-radiological context, a bronchoscopy was performed, revealing numerous firm bony/cartilaginous nodular formations in the trachea and endoluminal projection compatible with the diagnosis of TPO. A biopsy from a stenotic area of the left upper lobe was conducted for differential diagnosis among three possible conditions (most likely): TPO, tuberculosis, or bronchopulmonary neoplasm with bronchial stenosis. Bacteriological examination of bronchial aspirate for Koch's bacillus was negative on microscopy and subsequently on Lowenstein-Jensen culture after 2 months. Histopathological examination later identified a malignant process (squamous cell carcinoma). The patient was referred for contrast CT and MRI of the skull and dorsal spine for staging and to the oncology department for comprehensive management. **Discussions :** Despite being considered a benign condition, TPO over time has led to a decline in lung function, obstructive dysfunction, and recurrent symptoms. The occurrence of a pulmonary neoplasm may have combined risk factors, including smoking, advanced age, chronic inflammation induced by TPO, and frequent respiratory infections. Bronchoscopy allowed for the differential diagnosis of possible conditions in the context of proliferative tracheobronchial formations (bronchopulmonary neoplasm, tuberculosis, calcified amyloidosis, sarcoidosis, cartilaginous nodules in chronic bronchitis, and age-related changes). **Conclusions:** Early bronchoscopy is recommended for patients with difficult-to-control respiratory symptoms, frequent infections, and hemoptysis, especially in smokers with diminished lung function, for the early diagnosis of the underlying etiology and targeted treatment. TPO was an incidental discovery but played a contributory role in chronic symptoms, including partially controlled bronchial asthma, frequent respiratory infections, and pulmonary neoplasm.

Keywords: tracheobronchopathia osteochondroplastica, bronchopulmonary neoplasm, bronchoscopy

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CT FINDINGS IN A YOUNG AORTIC COARCTATION PATIENT

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Introduction: Coarctation or narrowing of the aorta is a common form of obstructive congenital heart disease. If it goes undetected or misdiagnosed it can lead to many serious problems. This narrowing unables the normal flow of blood, which can lead to backflow, hypoxia, pressure differences with negative effects on the heart. **Case Report:** We present the case of a one month old patient from the neonatology department. Contrast agent and saline

solution are administered (in total 3 ml of Iomeron 400 with a flow rate of 0.8 ml/s and 6 ml of saline solution with 0.6 ml/s). A cardiotoracic angio-CT examination is performed with prospective sequential acquisitions at an average heart rate of 108/min. Good opacification of the vascular bed and cardiac cavities. Decalibration of the aortic arch (4.7 mm, with a descending aorta of ~5.5 mm). Small discontinuity of the interatrial septum, a patent foramen ovale type. Slightly unbalanced aortic arch. Common origin of the brachiocephalic trunk and left common carotid artery (Bovie arch). Isthmic aortic coarctation (3 mm). Reacted right heart chambers. Persistent arterial duct with a 3 mm arterial end and a 1 cm pulmonary end. Multiple areas of ground-glass attenuation peribronchovascular and bilateral posterobasal, are interpreted in the context of cardiac dysfunction. Alveolar posterior basal left lung condensation. **Discussions :** Clinical manifestations depend on the severity of the narrowing and the patency of the ductus arteriosus. Preductal coarctation with a PDA usually presents early in life, classically as cyanosis localized to the lower half of the body. It is necessary to point out the importance of the CT in aortic coarctation. The detailed diagnosis will help in the treatment in a way that focuses on the exact needs of the patient and finds the best solutions for him. **Conclusions:** In congenital heart diseases the CT scan has an important role, because it gives a fast and detailed diagnosis, has great spatial resolution and covers wide aspects of the body. Aortic coarctation patients should undergo MRI and CT evaluations for a detailed diagnosis. As a treatment balloon dilation and stent placement or surgical resection with end-to-end anastomosis yields excellent results.

Keywords: cardio-thoracic computed tomography, infantile coarctation, contarst agent

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DIFFICULTIES IN DIAGNOSIS CHRON'S DISEASE EVALUATED TOGETHER WITH ITS DIFFERENTIAL DIAGNOSIS: A CASE-BASED PRESENTATION

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Introduction: One major forms of inflammatory bowel disease (IBD) is recognized as Crohn's disease (CD), a chronic inflammatory condition with granulomatous inflammation which can affect any part of the gastrointestinal tract; carrying a complex and mixed etiology. **Case Report:** We present a case of a 54 years old male patient admitted with asthenia, fatigue, arthralgia, marked weight loss (20 kg over 2 years), watery diarrheal stools for about 6 months (5-6 soft stools/day), abdominal discomfort and bilateral malleolar edema. Specific investigations were carried out such as colonoscopy, finding out that the mucosa of the terminal ileum was characterized by edema and multiple ulcerations, concludent with a chronic colitis; also the ileo-cecal valve was found presenting edema and non-specific erythema with 2 small ulcers; esophagus was found with class B esophagitis, at the level D2 it showed flattened folds and creped mucosa. Thus the patient had to be subjected to an histological exam: morphological aspect compatible with a chronic duodenitis with reduced/moderate villous atrophy and focal intraepithelial lymphocytosis. Considering the patient's persistent symptomatology, the imagistic evaluation, the marked weight loss, as well as the serological results which indicate anti-transglutaminase Ig A reactive, adding the endoscopic description, we consider the case as pleading for a gluten enteropathy superimposed on an intestinal inflammatory disease. MRI examination was performed which showed multiple areas of stenosis (>5) on the terminal ileum, small bowel and jejunum, with loss of laminar structure. This together with fecal calprotectin > 845 ug/g, and the initial histopathological result were concludent with Ileal Chron's Disease. **Discussions :** Transmural inflammation of the GI tract is the hallmark of CD with granulomatous features on histological exam. By reporting so, we want to emphasize these atypical features such as the lack of granulomatosis found upon biopsy, added to the presence of a comorbidity such as celiac disease can mislead the diagnosis of Chron's Disease. The previously described clinical picture could also be indicative of an infection, ruled out by the specific screenings. Considering CD as a final diagnosis, the patient benefited from antibiotic, antimycotic treatment, corticotherapy, amino acids. He was discharged hemodynamically and respiratory stable, with diet and treatment recommendations. **Conclusions:** Having seen the difficult path that lead to the conclusion of a Chron's Disease despite the uncommon findings of the histological exam, we want to emphasize that the positive diagnosis can be established by ruling out possible differential diagnosis and persisting with further examinations combined with the clinical picture.

Keywords: #ChronsDisease, #DifferentialDiagnosis, #AtypicalHistologicalExam, #CeliacDisease

CONNECTING THE DOTS: EXPLORING THE LINK BETWEEN TYPE 1 AUTOIMMUNE PANCREATITIS AND CHOLANGITIS

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Introduction: Autoimmune pancreatitis (AIP) is an uncommon form of pancreatic inflammation characterized by an immune-mediated process. It has two types, with type 1 often associated with elevated levels of IgG4. Notably, AIP exhibits a significant response to glucocorticoid therapy, but the relapse is very frequent leading to other complications. **Case Report:** A 60-year-old patient presented himself in the gastroenterology department accusing diffuse severe abdominal pain resembling pancreatic pathology and discoloured urine, which started one month before coming to the hospital. Abdomino-pelvic CT revealed a heterogeneous pancreatic structure associated with cephalic hypertrophy and upstream obstruction of the Wirsung duct and common bile duct. Laboratory investigations showed noticeably elevated IgG4 levels (958.6 mg/dl). Endoscopic ultrasound depicted a heterogenous pancreas with parenchymal calcifications, hypertrophied pancreatic head, and a 30/25 mm heterogeneous area with a retrograde dilated Wirsung duct at 5 mm distance. Vascular invasion was not observed. Biopsies from endoscopic ultrasound showed fibrosis and rare inflammatory cells. Immunohistochemical staining including AE3, chromogranin and Ki67, did not reveal any sign of malignancy. Fecal elastase was significantly low (98,4 µg/g), indicating exocrine pancreatic insufficiency. High-dose corticosteroid therapy was initiated for three months, followed by a gradual taper. Post-corticosteroid therapy, cholangio-MRI showed pancreatic and ductal changes with the disappearance of strictures. Additionally, post-treatment biological analysis showed decreasing (but still high) levels of IgG (165 mg/dl). Imuran therapy was initiated. At the six-month follow-up, a new cholangio-MRI pointed out a significant enlargement of the main bile duct (8 mm vs 5 mm after corticosteroids) and a suspicious supraduodenal stricture (26 mm) possibly being a cholangiocarcinoma. Subsequent endoscopic ultrasound confirmed the diagnosis of autoimmune cholangitis. The patient is scheduled for additional corticosteroid therapy combined with Imuran and a follow-up in three months. **Discussions :** A patient diagnosed on CT/MRI with distal common bile duct stenosis usually is referred to the surgical department for DPC (duodenopancreatectomy) with a high suspicion of cholangiocarcinoma/vaterian ampuloma. In the case of this patient, because the common bile duct stenosis occurred after the episode of autoimmune pancreatitis, the logical step was performing a biopsy from the stenosis to rule out malignancy. **Conclusions:** This case emphasizes the importance of considering autoimmune ethologies in patients presenting with pancreatic and biliary manifestations. Early diagnosis offers the opportunity to prevent other complications due to the intermittent increase of autoantibodies.

Keywords: AIP, cholangitis, autoimmune disease

TOXIC MEGACOLON, A RARE CLINICAL COMPLICATION OF FULMINANT CLOSTRIDIOIDES DIFFICILE INFECTION-CASE REPORT

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Introduction: Toxic megacolon represents one of the most severe complications linked to Clostridioides difficile infection, a life-threatening condition characterized by an acute dilatation of the colon, specifically exceeding 6 cm, contributing to elevated rates of morbidity and mortality. **Case Report:** This case report presents a 75-year old male patient, previously diagnosed with chronic ischemic heart disease, type 2 diabetes mellitus, with an operated and radiotreated colon tumor. He comes to the Emergency room complaining of affected general state, asthenia, dyspnea, diarrheal stools (2-3 per day) and hypotension. Examination was notable for confusion and diffuse abdominal tenderness, distended abdomen, painful to palpation with tympany. Also, out of laboratory analyses performed, a severe hyponatremia is revealed (Na:114mmol/l), mild hyperkalemia, acute kidney injury, coagulation dysfunction and elevated C-reactive protein (CRP) levels. Biological samples are collected for Clostridioides difficile exotoxin testing with a positive result, which is why targeted antibiotic treatment is initiated. Thoraco-abdominal-pelvic computed tomography (CT) is also performed, leading to the discovery of abdominal level diffuse distension of the transverse colon up to 7 cm, as well as of visible hydroaerial levels and ascites. Considering the

serious condition of the patient, it is decided to admit him to medical clinic for monitoring and specialized treatment. **Discussions :** The patient presented in this case is of advanced age, which represents a risk factor itself for the development of a possible complication following the infection with Clostridioides Difficile. In addition, the fact that he is an immunosuppressed, diabetic patient who underwent a surgical intervention on the colon, confirms that his medical history features multiple risk factors for the development of complications. **Conclusions:** Although it is a rare complication, when it occurs it has a fulminant evolution. In more than 80% of cases, it results in death, as proven by multiple studies, as well as by the facts highlighted in the presented case.

Keywords: acute dilatation of the colon, diabetes mellitus, rare complication, fulminant evolution

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UNRAVELLING THE IMPACT OF GRAVES' DISEASE ON BONE MINERAL DENSITY

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Introduction: Osteoporosis is a disease characterized by decreased bone mineral density caused by changes to the microstructure of the bones and can be complicated by fragility fractures. There are three types of osteoporosis, depending on the triggering factors. Primary osteoporosis includes postmenopausal osteoporosis and that of old age. Secondary osteoporosis appears in the presence of certain treatments, including glucocorticoids or is caused by various diseases such as hyperthyroidism and hyperparathyroidism. Mixed type occurs when primary and secondary causes coexist. **Case Report:** We present the case of a 57-year-old female that was diagnosed with severe osteoporosis two years after entering menopause, complaining at that time about lower back pain and the inability to move. MRI showed recent compression fractures at T11, T12, L2, L3 vertebrae and an old one at the L5 level, for which Ibandronate treatment was started. One year later, despite this medication, the patient was still complaining of continuous articular pain. Secondary causes of osteoporosis were investigated. The patient presented an adrenal incidentaloma, with negative screening tests for Cushing syndrome. Also, the thyroid function was evaluated, with a suppressed TSH (0,0001 uUI/ml), elevated levels of free T4 (2,63 ng/dl) and free T3 (4,93 pg/ml). High TSH-receptor antibodies (3,9 UI/l) confirmed the diagnosis of Graves' disease, for which Methimazole was prescribed, the patient attaining an euthyroid state under treatment. Teriparatide was prescribed for the osteoporosis. After two years, the treatment was pursued with Denosumab. In time the patient had a favorable symptomatic response and an improvement in Dual X-Ray Absorptiometry scores. **Discussions :** This case report highlights the effects of Graves' disease on the mineral bone mass, adding a risk towards developing osteoporosis. Elevated thyroid hormones from hyperthyroidism will activate osteoclasts and accelerate the turnover of bone. Furthermore, thyroid hormones may lead to a reduction in the level of active vitamin D, decrease the absorption of calcium and phosphorus in the intestine and increase the excretion of calcium and phosphorus in the kidney. **Conclusions:** Graves' disease can be complicated with osteoporosis and fragility fractures, associated with increased morbidity and mortality. It is crucial to seek and manage hyperthyroidism, so that we can reduce its impact on bone metabolism and the fracture risk.

Keywords: Osteoporosis, Hyperthyroidism, Graves' disease, Fracture

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GRANULOCYTIC SARCOMA AND ACUTE MYELOID LEUKEMIA

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Introduction: Granulocytic sarcoma (GS) is a rare extramedullary tumor characterized by the proliferation of immature myeloid cells, called blasts. It is frequently associated with acute myeloid leukemia (AML) or with chronic myeloproliferative or dysplastic syndromes and has a dismal prognosis. **Case Report:** A 60-year-old female presents to a local hospital, from Cluj-Napoca, accusing abdominal symptoms suggestive for a dyspeptic syndrome. An echography was performed and showed a two centimeters mass, in the ileocecal region. This was further confirmed by a colonoscopy and subsequently a CT scan revealed a retroperitoneal mass which surrounded the celiac trunk, the superior mesenteric artery and both renal arteries, its overall size being 81/75 millimeters. Shortly after, the patient was addressed to the hematology department, from Ion Chiricuta Oncology Institute, Cluj-Napoca, where the final diagnosis of GS was established. The peripheral blood smear showed more than 20% blasts and the immunophenotyping, from the bone marrow, confirmed the diagnosis of AML. Molecular biology showed no mutations in FMS-like tyrosine kinase 3 (FLT3) or Nucleophosmin 1 (NPM1) genes. Taking into

consideration the age and the fitness of the patient, a combination with azacitidine, a hypomethylating agent and venetoclax, a B-cell lymphoma 2 (BCL-2) inhibitor was started. The patient also received intrathecal prophylaxis with methotrexate, cytarabine and dexamethasone. After only one cycle of treatment, the patient achieved less than 5% blasts in the bone marrow, and the retroperitoneal tumor had shrunk by almost 30 millimeters. Unfortunately, after two cycles, the patient had 10% percent blasts in the peripheral blood, and more than 20% in the bone marrow. Second line treatment was started, and the patient is now undergoing the '3+7' regimen, an intensive chemotherapy which consists of three days of idarubicin and seven days of cytarabine. **Discussions :** There is no standardized approach in treating GS but in this case, a less aggressive treatment was preferred, as first line. Even if the patient achieved a remarkable response initially, its duration was very short, suggesting the threatening nature of the diseases. Furthermore, in GS, the risk of central nervous system involvement is high. In the relapsed setting, allogeneic stem cell transplantation is mandatory. **Conclusions:** GS is a rare tumor that can develop in atypical sites and can be discovered either by organ compression in a non-leukemic form or, in other cases, it can manifest clinically associated with AML.

Keywords: Granulocytic sarcoma, Acute myeloid leukemia, Chemotherapy

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FULMINANT DESCENDING COLON CANCER WITH LIVER AND LUNG METASTASES IN AN ASYMPTOMATIC PATIENT

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Introduction: Colon cancer is a common type of cancer that occurs in older patients. The colon can be affected at any level, often due to the presence of benign polyps that develop into malignant tumors over time. Colorectal cancer is described as having a slow and unfavorable evolution, and there are multiple types of oncological treatments available. **Case Report:** The 72-year-old patient, known as an alcoholic and a heavy smoker, has chronic obstructive pulmonary disease, hypertension, presents with mucopurulent cough, dyspnea, tachypnea, and diffuse abdominal pain for 3 days. The thoracic radiography doesn't descriebe any pleural fluid, but after the chest CT scan was presented, a 30 mm homogeneous hypodense mass in the left upper lobe was in contact with the aortic arch.The abdominal-pelvic CT scan highlights a liver with nodular contour and inhomogeneous structure due to the presence of numerous sized hypodense formations distributed throughout the entire hepatic parenchyma. Due to the increased values of the carcioembryonic antigen and CA19-9, the presence of a cholangiocarcinoma is suspected, and due to the lack of MRI, contrast ultrasound was performed, describing the presence of a 10x12 cm tumour in the splenic flexure with multiple liver metastases (some necrotic) and hepatomegaly until the right iliac fossa. **Discussions :** The absence of digestive symptoms in the advanced stage of the disease and the evolution up to acute hepatic insufficiency 4 days after presentation are unique features of the case.The patient refused the lung and liver biopsy. His prognosis is unfavorable because of the agressive form of the descending colon cancer with the presence of remote liver and pulmonary metastases wich requires palliative care. **Conclusions:** The survival rate of patients with colon carcinoma is based on the stage of the illness. Multidisciplinary approaches including surgery, chemotherapy and targeted therapies, play crucial roles in managing this disease.

Keywords: Colon cancer, Lung metastases, Liver metastases, Cholangiocarcinoma

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UNRAVELING THE DIAGNOSIS: INFECTIVE ENDOCARDITIS OR AUTOIMMUNITY IN A 9-YEAR-OLD

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Introduction: Infective endocarditis (IE) is the inflammation of the endocardium, primarily caused by bacteremia. It is a rare condition, even more uncommon in children, although it may occur more frequently in patients with congenital heart disease (CHD). **Case Report:** A 9-year-old female patient with a history of atopic asthma, well-controlled with Singulair, presented in the local emergency unit with fever (39ºC), generalized purpuric rash, malar rash and tibio-tarsal arthritis, which appeared 2 months after an infection with Salmonella. On thourough physical examination: acute dehydration, paleness, purpuric rash, swelling of the tibio-tarsal joint, tender pink nodules with

a pale centre (Osler nodules) on toes and digits, irregular nontender hemorrhagic macules on hands (Janeway lesions) and a grade 2 mitral systolic murmur. The investigations displayed: elevated CRP (11mg/dl), procalcitonin (3 ng/ml), elevated D-dimers, thrombocytopenia and a negative COVID-19 test. The patient was transferred to the Clinical Hospital for Pediatric Emergencier Cluj-Napoca. Blood cultures were collected. An empiric antibiotic treatment with Meropenem was started for sepsis. An echocardiography was also performed because of the high probability of IE, but with no modifications. The patient developed proteinuria and hematuria. The patient met 4 clinical and 1 immunological criteria (positive lupus anticoagulants) for systemic lupus erythematosus. The systemic form of juvenile idiopathic arthritis and Kawasaki-like disease (skin descuamation) were also considered. The blood culture results were positive for Staphylococcus aureus, thus another antibiotic was introduced: Teicoplanin. Another echocardigraphy was performed, this time depicting a vegetation on the atrial surface of the mitral valve, which prolapsed in the left ventricle during diastole. At this point, the patient met 2 major and 1 minor Duke criteria for IE. Treatment with Vancomicin was started. The patient developed acute mitral regurgitation (MR), which was treated surgically with mitral valve reconstruction. All manifestations were cured post surgery. **Discussions :** A mitral valve abscess, not particularly observed on the first echocardiography might cause MR. At first, the clinical signs suggested an autoimmune disease, that might have been triggered by the Salmonella infection, but these can also be found in sepsis with Staphylococcus aureus. IE is a rare condition in children, especially with no history of (CHD) or heart surgery. **Conclusions:** IE, although rare, should be considered and treated promptly because of the major cardiac and systemic complications it can cause. It can embrace multiple forms, mimicking several severe conditions that require attentive care.

Keywords: infective endocarditis, systemic lupus erythematosus, Salmonella infection, acute mitral regurgitation

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COMPARISON AND ONGOING TREATMENT OF TWO PATIENTS WITH EARLY ONSET PSYCHOSIS

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Introduction: Children with early-onset psychosis suffer from much of the same symptoms as their adult counterparts. In this case report, two cases of patients (patient A and patient B) who presented with a psychotic episode of differing origin will be compared; one patient whose psychosis is secondary to depression, and one solely with psychosis. **Case Report:** Patient A received treatment for the last 2 years, incl. ADHD and social phobia. The patient was referred to the doctor by SMURD, due to self-inflicted lesions. She has paranoid ideation, including ideas of persecution ("pedophiles on the streets"), and auditory hallucinations, i.e. hearing voices telling her she is ugly.Patient B was admitted to the hospital after an attempted autolytic event. She called the police herself. She reports feeling "changed", and "followed". Next to that, the patient also experiences hallucinations. This is shown by her perception of two people whispering in her ear. One of the people is telling her to kill her parents, and herself. **Discussions :** Even though both patients present with psychotic symptoms, the etiology of their condition is significantly different. For patient A, whose hallucination is a decompensation of her psychiatric comorbidities. Psychoses of such genesis are well known. The condition of patient B is of noticeably different origin. That being said, it is of interest to note that the pathogenesis of psychosis is majorly heterogeneic. Certain studies have shown that next to genetics, adverse live events could exacerbate the condition, or trigger a relapse. **Conclusions:** The two shown cases function as a good example for the differences in the development of early-onset-psychosis. In any case though, the familial context for cases like these is of utmost importance, as the treatment of children hinges on their parents just as much as it does on doctors.

Keywords: early onset psychosis, psychosis, child and adolescent psychiatry, psychiatry

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MANAGEMENT OF A PATIENT WITH HEPATOCELLULAR CARCINOMA COMPLICATED WITH ESOPHAGEAL VARICES: A CASE REPORT

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Introduction: The main cause behind hepatocellular carcinoma is preexisting liver cirrhosis caused by chronic infections with HBV or HCV. HCV is associated with a higher rate of achieving sustained virologic response, but

the risk of hepatocellular carcinoma remains present, especially in patients with liver cirrhosis. Gastroesophageal varices represent a frequent complication of HCC, which can interfere with the therapeutical process and prognostic of the patient. **Case Report:** We present the case of a 66-year-old male patient, with hepatitis C-related liver cirrhosis, who achieved sustained virologic response after direct antigen antivirals treatment 8 years ago. However, he was diagnosed with hepatocellular carcinoma 2 years ago and, since then, he underwent 2 surgical resections of hepatic segments. He presents to the internal medicine department for clinical revaluation. The CT examination revealed a nodular formation of 31mm in diameter in the eight-liver segment, situated in contact with the inferior vena cava and the middle hepatic vein, without metastases. This formation was highly suggestive for another hepatocellular carcinoma nodule. First line systemic chemotherapy with Atezolizumab and Bevacizumab was selected as the therapeutical method. The endoscopic evaluation revealed second grade esophageal varices in the lower third of the esophagus, so the patient is carefully monitored for gastrointestinal bleeding, and, in case of aggravation, changing treatment to Sorafenib is considered. **Discussions :** Surgery is the main treatment for localised hepatocellular carcinoma, but in case of multiple relapses, other options may be considered, such as transarterial chemoembolisation or systemic treatment. Transarterial chemoembolization is the gold strandard treatment for unresectable tumors, which are larger than 3 cm or are multinodular. Otherwise, the next treatment option is systemic therapy with Atezolizumab and Bevacizumab. The gastroscopy is a compulsory procedure in cases of HCC, being the best way to asess portal hypertension. If large varices are identified, prophylactic therapy may be suggested, such as band ligation or beta-blockers administration. If the prognostic of portal hypertension is worsening, the recommandations are to change treatment to a tyrosine kinase inhibitor, like Sorafenib. **Conclusions:** Hepatocellular carcinoma relapses are associated with a poorer prognosis and a minimal benefit from surgical resection, so finding a systemic chemotherapy that does not aggravate the existing complications is crucial for curing the patient.

Keywords: Hepatocellular carcinoma, Sustained virologic response, Esophageal varices

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TO BE OR NOT TO BE A SUSPICIOUS D1 VERTEBRAL BODY LESION? A CASE REPORT

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Introduction: The vertebral column is the most frequent site for the spread of cancerous cells in the bones. Primary tumors in this area comprise less than 10% of cases. Among adults, hemangioma (30%) and osteoblastoma (12%) are the most common benign tumors, while plasmacytoma (25%) is often associated with malignant neoplasms. **Case Report:** A 26 y/o female presented to the emergency department with an acute, spontaneous and severe episode of interscapular pain, radiating to the cervical area. Clinical examination was insignificant for major organs and systems, whereas musculoskeletal examination showed paravertebral muscular contracture, hypertrophy of the C7 spinous process, increased sensibility of the spinous processes of the cervical-dorsal vertebral palpation, Shober test:13,5 cm. The patient's history revealed Hashimoto's thyroiditis and polycystic ovarian syndrome, with no relevant family history, no alcohol intake or smoking. For pain management, she was referred to a rehabilitation medicine department. A 10-days therapy program with ultrasounds, transcutaneous electrical nerve stimulation and kinesiotherapy improved her general state. The dorsal spine MRI examination showed a 16/12/11 mm D1 vertebral body lesion, relatively well defined, with inhomogeneous signals in all sequences and no contrast enhancement. The patient was referred to the haematology department and a PET-CT was performed, which excluded the suspicion of plasmacytoma due to the negative FDG uptake at the level of the previously detected lesion. Taking the patient's age into account, osteoblastoma or other malignant tumors could be potential diagnoses, but these are inconsistent with the poor vascularization indicated by the negative uptake of the contrast substance used during MRI. The most likely diagnosis is a medullary-bone infarction, although the possibility of a malignant condition cannot be entirely dismissed. **Discussions :** Osteonecrosis can be caused by an old traumatic injury, so minor that the patient won't even recall it, alcohol abuse, chronic cortisone treatment or can be idiopathic. Some new studies attribute non-traumatic osteonecrosis incidents on behalf of some autoimmune disease, which can apply in this case, as the patient is known with a history of Hashimoto's thyroiditis. The diagnostic remained uncertain and the patient has to undergo, annually, a PET-CT examination. We appreciate that a bone biopsy should have been done, to establish the aetiology of the D1 lesion. **Conclusions:** Acute, intense and spontaneous spine or joint pain in young patients should be closely investigated for an early-detection of a possible malignant transformation.

Keywords: primary tumors, D1 vertebral body, medullary-bone infarction

ARTERIOVENOUS FISTULA OF THE FEMORAL VESSELS - A CASE REPORT

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Introduction: An arteriovenous fistula is an abnormal communication between an artery and vein. This can be characterized by lower extremity ischemia, limb edema, ulcer formation or high-output heart failure. Said abnormality is almost always associated with and related to an iatrogenic cause or it elicits due to trauma. Patients often being initially asymptomatic or experiencing pain and swelling of the leg upon clinical examination. **Case Report:** A 16-year-old, male patient was referred to the emergency hospital in Targu Mures. The patient had history of previous surgery. The interventional procedure led to development of a arteriovenous fistula in a femoral artery. A computed tomography of the chest, abdomen and lower extremities was performed. The CT revealed presence of a small arteriovenous fistula between the right and left femoral artery. The imagining exposed accumulation of contrast medium in the inferior vena cava and right common iliac vein. In addition to that, there was a mild dilation of right external iliac vein, common iliac vein, and the inferior vena cava. A thin flow of blood was visible in the right femoral artery, with contrast-filled blood draining from the arterial circulation into the venous one. **Discussions :** Arteriovenous fistula (AVF) is associated with abnormal flow of blood from an artery, with higher pressure, into a vein with lower pressure. This abnormal blood flow can cause an abnormal pulse in the groin region and resulting venous congestion will cause edema in the lower extremity. Most commonly the femoral AVF arises due to surgical interventions, for example when gaining access for percutaneous cardiovascular procedures. AVF can be asymptomatic for a longer period but should be treated as soon as any signs or symptoms arise in order to avoid chronic consequences like, for example, ulcer formation below the site of the fistula. The prevalence of this anomaly is not high but is increased especially in predisposed individuals. Risk factors include hypertension, high Body Mass Index as well as use of anticoagulants and antifibrinolytics. **Conclusions:** For the diagnosis a doppler ultrasound is obtained and a computer tomography or an angiography is performed. The treatment will depend on if the fistula is symptomatic or not and on how fast it is progressing. It consists of ligation of the communication between the two vessels.

Keywords: Arteriovenous fistula, Femoral artery, Lower extremity ischemia, Venous congestion

DOUBLE HETEROZYGOUS BRCA MUTATIONS IN PREGNANT WOMAN – A CASE REPORT

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Introduction: BRCA1 (breast cancer susceptibility gene 1) and BRCA2 are tumor suppressor genes, contributing to DNA repair and regulation in case of DNA damage. Mutant phenotypes predispose individuals to certain types of cancer throughout their lifetime, as about 5 to 10% of breast cancers are attributed to genetic susceptibility. Multidisciplinary screening and prevention strategies can reduce the mortality of such patients. However, cases of double heterozygosity of these germline mutations are rarely reported, despite of the uncertain prognosis. **Case Report:** A 37-year-old pregnant woman presented to the clinician requesting oncogenetic counseling in the context of mother and sister having breast cancer. No relevant medical history was declared. A next generation sequencing test for 125 genes (NGS 125 gene) revealed the following mutations: pathogenic variants for BRCA1 and BRCA2 genes and variant of uncertain significance (VUS) for ATM gene, all three having heterozygous status. In silico prediction algorithms showed that the latter pleads for a well-tolerated variant in phenotype. To the best of our knowledge, double heterozygous BRCA1 and BRCA2 pathogenic defect discovered during pregnancy has not yet been reported. The presence of both germline mutations combined with significant oncological history of first-degree relatives puts the patient at increased risk of breast and ovarian cancer. The chance of occurrence for the first one is 45-60% with 80% chance of bilateralization for each gene mutation. All clinician's recommendations were prophylactic. Screening for mammary neoplasm for this patient included regular self-, clinical, and imagistic examinations as well as future bilateral mastectomy with optional mammary reconstruction. Screening for ovarian neoplasm consisted of endovaginal ultrasound, annual dosage of CA-125, and eventual salpingo-oophorectomy or total hysterectomy. Family genetic counseling along with counseling therapy and optional nutrigenetic evaluation were also suggested. **Discussions :** What makes this case report particular is that, besides the double heterozygosity status of the mutations, the patient was diagnosed during pregnancy which brings further distress

on a psychological level. However, being aware of the condition enables her to take the best course of action regarding the possibility of a future malignancy, as the physician recommended. **Conclusions:** Pathogenic variants of both BRCA1 and BRCA2 are rarely reported in the existing literature. In such cases, early genetic diagnosis plays a highly significant role because prophylactic measures can be taken in advance, improving the prognosis.

Keywords: BRCA, double mutation, breast cancer

ANGIOMYOLIPOMA VS LIPOSARCOMA: DIAGNOSTIC COMPLEXITIES IN RETROPERITONEAL TUMORS

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Introduction: Angiomyolipomas (AMLs) are neoplastic lesions characterized by the presence of three primary tissue components: thick-walled blood vessels, smooth muscle cells and mature adipose tissue. Previously classified as hamartomas, AMLs are now categorized as perivascular epithelioid cell tumors (PEComas). Despite their marked pleomorphism, AMLs may mimic the histological features of sarcomas and carcinomas; however, they typically demonstrate a benign clinical course, with exceptions being exceedingly rare. **Case Report:** We present a case involving a 55-year-old patient with a medical history of arterial hypertension and class II obesity. The patient requested evaluation at the surgery department, citing exertion-induced pain and the presence of a pseudo-tumoral mass near the umbilicus, which first appeared approximately five years ago. Subsequent surgical exploration revealed a retroperitoneal mass measuring 140x100x65 mm, which underwent excision and was sent to the pathology department alongside fragments of perirenal fat. Upon microscopic examination, the perirenal fat sections displayed no significant alterations. However, multiple sections obtained from the perirenal tumor exhibited consistent characteristics: adipocytes with multi-vacuolar cytoplasm, sporadically enlarged nuclei with uniform contours, small vacuolated nuclei, or multinucleated cells. Vascular structures of varying sizes, surrounded by spindle cells with oval nuclei, tested positive for smooth muscle actin (SMA) and HMB45 immunohistochemical markers. Additionally, scarce CD68-positive macrophages and Ki-67-positive cells were identified. **Discussions :** Differentiating AMLs from well-differentiated liposarcomas (WDLs) can be challenging because both tumors may appear as similar large fat-containing perinephric masses. However, their prognoses differ, highlighting the need for a definitive diagnosis. The specialized literature suggests that obesity may increase the risk of developing renal neoplasms and AMLs as well. **Conclusions:** Our case highlights the diagnostic challenges related to retroperitoneal tumors, implying that obesity might contribute to the development of AMLs, furthermore underscoring the vital role of precise differential diagnoses.

Keywords: Retroperitoneal Tumors, Angiomyolipoma, Differential diagnoses, Obesity

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CASE REPORT: PRADER-WILLI SYNDROME, A RARE GENETIC DISEASE THAT NEVER SATIATES THE HUNGER

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Introduction: Prader-Willi syndrome (PWS) is a complex neurodevelopmental disorder caused by the lack of expression of genes in the 15q11.2-q13 region of the paternally inherited chromosome. The first clinical manifestation observed during infancy is severe hypotonia which is also the cause of poor suck, resulting in extremely thin children. However, this apparent slenderness is temporary, because due to hypothalamic dysfunction, these children do not feel satiety and develop hyperphagia followed by alarming obesity which is the cause of many comorbidities. Moreover, other phenotypical characteristics include short stature, incomplete pubertal development, obsessive-compulsive disorder concerning food, and central hypogonadism with growth hormone deficiency. **Case Report:** A six-month-old was admitted to the hospital, the reason for the initial presentation being generalized hypotonia, craniofacial dysmorphism (reduced biparietal distance, narrow palpebral fissures, bilateral epicanthus, thin upper lip, low-set ears, micrognathism), bilateral cryptorchidism. Therefore, MS-MLPA testing was performed, detecting a heterozygous deletion of the 15q11-q13 region and hypermethylation of the SNRPN, which confirms the initial suspicion of Prader-Willi syndrome. In subsequent years, the male patient is

hospitalized for re-evaluation, presenting: epilepsy under treatment with Lamictal and Clobazam, age-appropriate stature development (SDS= +1.33), overweight (+46% for waist, BMI>p97% compared to waist), maintained craniofacial dysmorphism, dental dystrophies, hypoplasia of the external genital organs, moderate generalized hypotonia, expressive language delay, low IGF1. Consequently, he starts treatment with growth hormone (Genotropin) at age 5, a treatment which improves body fat distribution and cognitive development. He is also recommended a hypocaloric well-supervised diet, kinesiotherapy, frequent dental consults, and continued stimulation of mental functions under specialized care. **Discussions :** The evolution over the years shows an interesting situation of early adrenarche followed up by late pubarche. Research shows that hypothalamus dysfunction is the nucleus of the insatiable appetite, the arcuate nucleus being responsible for homeostatic satiety, cognitive process and motivational drive. Furthermore, the patient is frequently readmitted to the hospital for morbid obesity with insulin resistance, developed at the age of 10-year-old. His parents accuse obsessive-compulsive eating that cannot be kept under control, the child acting on the urge to feed and does not stick to the diet. **Conclusions:** The intellect is not significantly affected, the preeminent comorbidities of this rare genetic disease come from hedonic feeding. Therefore, this case report aims to discuss neurological agents of hyperphagia and obesity in patients with PWS, along with treatment management.

Keywords: Prader-Willi syndrom, hedonic feeding, hypotalamic dysfunction, morbid obesity

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CASE PRESENTATION: CHLAMYDIA IN THE RESPIRATORY TRACT

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Introduction: Chlamydia is a bacterium that predominantly causes genital infections, but there are also bacterial strains that can reach the respiratory tract causing pneumonia, such as Chlamydia pneumoniae, that presents with symptoms similar to other types of pneumonia, such as: persistent coughing, fever, dyspnea, discomfort in the chest or fatigue. Some individuals may experience only mild symptoms or may be asymptomatic. **Case Report:** We present a case of a 52-year-old patient presenting the following symptoms: dry cough, marked fatigue and low-grade fever. He performs a rapid influenza test at home, which comes back positive, and he begins treatment with antivirals, experiencing a slight improvement in symptoms. However, after a few days, his general condition worsens, and he presents to the Infectious Diseases Clinic. Subsequently, he is transferred to the Pneumology Clinic for specialized investigations and treatment. The patient undergoes a chest X-ray revealing pulmonary consolidation in the left lung field and a small amount of left pleural effusion. A pleural tap is performed, evacuating 30+60ml of fluid which is sent to the laboratory for examination. Laboratory tests reveal the following pathological values: the presence of antibodies in the blood: anti Chlamydia trachomatis IgA, anti Chlamydia pneumoniae IgM and IgG, and antibodies to Mycoplasma pneumoniae IgM ang IgG and an increased number in leukocytes, which is a sign of infection. The pleural fluid was exudative, with elevated protein levels and low glucose levels, indicating the transformation of the fluid into empyema, showing that the infection has spread from the lung tissue into the pleural space. **Discussions :** Chlamydia pneumoniae and Mycoplasma pneumoniae can reach the lungs through inhalation: when an infected person coughs or sneezes, the bacteria can enter anoter person's respiratory tract and reach the lungs, leading to infection. However, it is uncommon for Chlamydia trachomatis to be found in the lungs and the transmission route is uncertain in this case, as it can generally be picked up from contaminated surfaces or from unprotected sexual activities. **Conclusions:** The patient is diagnosed with pneumonia caused by the three bacteria present in the lungs, and antibiotic treatment begins with Gentamicin and Cefuroxime. However, due to a slow favorable evolution, the antibiotic treatment is changed to Meropenem, along with mucolytics, antipyretics and systemic corticosteroid therapy. Consequently, the patient's clinical evolution is favorable, with stable hemodynamics, and he is planned for discharge with outpatient antibiotic and reevaluation by a pneumologist if needed.

Keywords: Chlamydia thracomatis, pleural tap, pleural consolidation, pneumonia

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BALLOON PULMONARY ANGIOPLASTY

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Introduction: Chronic thromboembolic pulmonary hypertension (CTEPH) is a disease in which a pulmonary artery

is occluded with a thrombus. This increases pulmonary resistance and, therefore, the afterload of the right heart, resulting in pulmonary hypertension. Balloon pulmonary angioplasty is a minimally invasive procedure to dilate stenosed pulmonary arteries, such as those in patients with CTEPH. During this procedure, a balloon catheter is inserted through a central vein from the right heart to the pulmonary arteries. At the site of stenosis, the balloon is inflated and dilates the stenotic material so that the arteries are open and perfusion is ensured. **Case Report:** With restricted availability in Romania due to a lack of expert centres, we present the case of a 49-y.o. patient, known with bilateral PE post episode of right femoral-popliteal DVT, under anticoagulant therapy with Warfarin, later diagnosed with pulmonary hypertension group 4 (subgroup 4.1) WHO-functional class III and thrombophilia (A1298C MTHFR gene heterozygous mutation). At the presentation (2019), an electrocardiogram showed sinus rhythm, right axis deviation with right bundle branch block, and signs of atrial and ventricular hypertrophy. Echocardiography and right heart catheterization presented signs of severe pulmonary hypertension. Mean NT-proBNP values before PEA were above 4000 pg/mL, and the 6-minute walking distance(6MWD) measured 79% from predicted. The patient underwent specific national treatment with guanylate cyclase stimulator (indication IA European Guide ESC/ERS 2022) - total daily dose 3x2.5mg. **Discussions :** BPA improves the life expectancy and quality of the patients with access to this procedure. They can reduce or quit their medication, which will also reduce side effects and increase life quality. In May 2023, under collaboration with experts from Poland PH's interventional centre, the patient underwent BPA at the level of the inferior right pulmonary lobe. Assessment after one year showed an improvement of 7% in 6MWD and minimal signs of myocardial stress, as represented by NT-proBNP values of 48 pg/mL. **Conclusions:** Balloon pulmonary angioplasty is a feasible interventional method in inoperable CTEPH, improving hemodynamic parameters, proper heart function, and exercise capacity.

Keywords: Chronic thromboembolic pulmonary hypertension (CTE, interventional therapy, Balloon pulmonary angioplasty

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EPIGASTRIC PAIN RESULTING IN ACUTE MYOCARDIAL INFARCTION IN A YOUNG PATIENT AND THE IMPLICATIONS OF COCAINE USE - A CASE REPORT.

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Introduction: ST-segment elevation myocardial infarction (STEMI) frequently manifests as an acute presentation in the Emergency Department. While chest pain is a hallmark symptom along with dyspnea, arm and jaw pain described as dull, heavy, tight or crushing, a considerable number of patients may not exhibit this symptom upon presentation. Epigastric pain is an unusual but potentially critical presenting symptom of STEMI and it poses diagnostic challenges and underscores the importance of considering a broader range of symptoms in the evaluation of acute myocardial infarction(AMI). **Case Report:** 33-year-old male patient, presented to the Gastroenterology Emergency Department due to epigastric pain. He has a pertinent family history, with his father succumbing to acute myocardial infarction at a young age. Paraclinical investigations revealed elevated levels of lactate dehydrogenase(434.00 U/L) and C-reactive protein(8.38 mg/L), markers for myocardial damage. However, there were no modifications in creatine kinase-MB levels. An electrocardiogram was promptly performed, revealing ST-segment elevation in derivations V1-V5 which primarily reflect myocardial ischemia involving the septal and anterior walls of the left ventricle. During the anamnesis, it was discovered that the patient had a history of regular cocaine use. This information adds a crucial dimension to the case, as cocaine consumption is associated with an increased risk of acute myocardial infarction owing its vasoconstrictive and pro-thrombotic effects. The patient was transferred to another hospital where they underwent angiography, angioplasty, and echocardiography. During the angiography, a lesion in the left dominant coronary artery was discovered together with significant subocclusive stenosis. PCI IVA was successfully performed during the procedure and the patient's condition improved, aided also by the young age. **Discussions :** Patients presenting with epigastric pain benefit from an electrocardiogram(EKG), as a significant percentage of both men and women with acute myocardial infarction report in clinics similar symptoms. Given the prevalence of epigastric pain in myocardial infarction cases, conducting an EKG evaluation is crucial to assess for possible cardiac etiologies and ensure a comprehensive differential diagnosis. **Conclusions:** This case underscores the importance of prompt diagnosis of acute myocardial infarction, particularly when presented with atypical symptoms such as epigastric pain. The recognition of cardiac involvement in patients with non-specific complaints like epigastric pain is crucial for timely intervention and improved outcomes. Additionally, the importance of cocaine use as a contributing factor to the risk of myocardial infarction cannot be overstated. Healthcare providers should remain vigilant for cardiac events in individuals with a history of cocaine use.

Keywords: epigastric pain, myocardal infarction, cocaine use

A RARE CASE OF PYLEPHLEBITIS

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Introduction: Pylephlebitis is a rare condition (incidence of 0.37-2.7 cases per 100,000 person-years) characterized by septic thrombophlebitis of the portal vein and its tributaries. It is frequently caused by an intraabdominal inflammation, the most common etiology being represented by appendicitis and diverticulitis. **Case Report:** A 47-year-old male presented to the emergency department for a syncopal episode. Moreover, in the last couple of days, the patient complained of upper abdominal tenderness, with maximal intensity in the right upper quadrant. He had a history of alcohol dependence and was diagnosed with stage 2 hypertension. Laboratory tests revealed high levels of amylase, lipase, AST, GGT and minimal inflammatory syndrome (CRP 1.8 mg/dL) with a normal procalcitonin (0.045 ng/ml (normal value <0.06ng/mL). An increased level of D-Dimer was also observed. Blood cultures were negative for both aerobic and anaerobic bacteria. Abdominal ultrasound showed a diffuse hyperechoic liver, thickened walls of the portal vein with no flow (pylephlebitis), and an enlarged hypoechogenic inhomogeneous head of pancreas (ischemia). An abdominal CT with contrast was performed to confirm the thrombosis of the portal vein and its tributaries. The treatment consisted of 3rd generation cephalosporin, metronidazole and anticoagulant, with rapid resolution of abdominal pain. The patient was discharged after 8 days, and received antibiotics for another 3 weeks, and anticoagulant until his next medical appointment (in 2 months). **Discussions :** The typical etiology of pylephlebitis is the dissemination of bacteria in the bloodstream resulting from an infection in the abdominal or pelvic cavity. The main presenting symptoms are fever (can be absent in 10-15%) and abdominal pain. Most commonly pylephlebitis is associated with polymicrobial infections followed by monomicrobial infections with Streptoccocus viridans, Bacteroides fragilis, as well as Escherichia coli. The patients which present pylephlebitis are managed with antibiotics and anticoagulants. Unlike most pylephlebitis causes, this case is distinguished by others because the phlebitis is not associated with a positive blood culture. The studies from literature report that up to 30% of blood cultures are negative . The cause of pylephlebitis in this case was alcoholic pancreatitis (5.5% of pylephlebitis are secondary to acute pancreatitis) which has determined and subsequently the thrombosis of portal venous system. Bacteremia can occur in patients with acute pancreatitis, but is more common in biliary pancreatitis than in alcoholic pancreatitis. **Conclusions:** We report a rare cause of pylephlebitis as a complication of acute pancreatitis in the absence of a positive blood culture or evident intraabdominal infection.

Keywords: pylephlebitis, acute pancreatitis, negative blood culture

PLEURAL EMPIEMA AND EXTENSIVE PULMONARY SUPPURATION: A RARE CASE OF PULMONARY INFECTION WITH ANAEROCOCCUS PREVOTII AND FUSOBACTERIUM NUCLEATUM

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Introduction: Anaerococcus prevotii and Fusobacterium nucleatum are prevalent bacteria within the human commensal microbiota, commonly found in various bodily regions. Anaerococcus prevotii, characterized by its Gram-positive anaerobic nature, when acting as a pathogen, is often found in ovarian abscesses, vaginal discharge, urinary tract infections, whereas Fusobacterium nucleatum, a Gram-negative anaerobe, is well-known for its involvement in periodontal disease. Although infrequent in lower respiratory tract infections, these bacteria can lead to exceptionally severe outcomes. **Case Report:** We present the case of a 42-year-old patient, with no significant medical history, who arrived at the Emergency Department service complaining of: a productive cough with medium-large volume purulent sputum (with elements of vomica), marked asthenia, fatigue, with a declarative onset of 2-3 weeks. An ultrasound-guided right pleural puncture evacuated thick, foul-smelling, greenish pus; biochemistry revealed reduced glucose, elevated LDH. The initial therapeutic regimen comprised Metronidazole, Penicillin, Amikacin, and Ciprofloxacin. Despite imagistic suspicion, preliminary tests for Mycobacterium tuberculosis infection (including Genexpert) yielded negative results. Laboratory findings suggest the presence of an infection, notwithstanding the exclusion of common pathogens typically associated with lower respiratory tract

pathology during bacterial examination. However, it is noteworthy that Fusobacterium nucleatum and Anaerococcus prevotii are detected. The patient develops respiratory acidosis and receives oxygen therapy via a mask. CT findings include a left fixed pneumothorax (59 mm thick) and a right pleural effusion (60 mm thick) (hydropneumothorax with a horizontal level), multiple serous cavities, some communicating with bronchial branches, pulmonary changes include interstitial reticulations and opacities, with basal consolidation in the right lower lobe. Surgical consultation excludes the need for intervention due to extensive suppuration and poor biological status. Despite resuscitation attempts, the patient goes into cardiorespiratory arrest and dies. **Discussions :** The patient exhibits severe symptoms of respiratory infection, including bilateral pneumothorax and empyema, necessitating immediate medical interventions and a multidisciplinary approach to manage associated complications. Upon consulting the specialized literature, we found a limited number of similar cases, along with studies indicating an increasing trend of such occurrences across various European countries. **Conclusions:** This report presents a unique instance of extensive bronchopneumonia and pulmonary suppuration triggered by Anaerococcus prevotii and Fusobacterium nucleatum, underscoring their clinical relevance in pulmonary contexts. Cultivating the incriminated pathogens proves challenging due to their fastidious anaerobic nature, and, although cultivable, they are frequently missed in routine culture employed by hospital laboratories. Although infrequent in lower respiratory tract infections, we emphasize the rising prevalence of such cases across several European countries.

Keywords: Anaerococcus prevotii, Fusobacterium nucleatum, Pulmonary suppuration, Pleural empiema

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SUDDEN DEATH DURING COVID-19 PANDEMIC PERIOD: CONSECUTIVE SARSCOV-2 POSITIVE CASE SERIES

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Introduction: Sudden death is a controversial diagnosis, as its unpredictable occurrence makes it difficult to identify the underlying causes. In Romania, sudden death is included among deaths suspected of being violent and is required an autopsy to establish the cause. Some studies show that there was a rise in home deaths during the pandemic in many countries. Our aim was to find and to describe Sars-Cov-2 positive patients that died at home without known clinical data and to identify the cause of death. **Case Report:** All consecutive cases that fulfilled the following inclusion criteria were chosen: non-violent deaths at home during the COVID-19 pandemic, absence of clinical data about the patients from whom histological samples were taken, the confirmation of SarsCov-2 infection during autopsy. The autopsies were performed between October 2020 and May 2021 at the Institute of Legal Medicine of Târgu Mureș. For all seven cases identified, the macroscopic and microscopic changes were noted. Five men and two women were included in our study, with a medium age of 48 years old (between 26 and 63 years). Macroscopically, myocardosclerosis was identified in five cases, all men, and was also confirmed microscopically. Bronchopneumonia was macroscopically seen in four cases, two women and two men and was microscopically confirmed only in two cases. The characteristic acute respiratory distress syndrome was revealed in the rest of the cases. Massive pulmonary edema and cerebral edema were macroscopically and microscopically seen in all cases. An old lacunar infarct of basal ganglia was identified in one case, and old myocardial infarction was revealed in two cases. **Discussions :** The fact that it was generally rare for someone with COVID-19 to die at home (overall 8.3%) suggests that much of the rise of home death is related to patients suffering from other life-threatening conditions. Almost all our SarsCov-2 positive cases were with chronic diseases, except the two women that were younger (medium age 36 years) and with no significant chronic pathological conditions. All our cases died suddenly at home due to COVID-19 disease. **Conclusions:** Sudden death involves multiple mechanisms, not all of which have a macroscopic, visible impact on the body. Microscopic changes may suggest certain pathologies. The combination of different types of injuries may explain the cause of death better than a single injury.

Keywords: sudden death, SarsCov-2 infection, histopathology

MAKE A LONG STORY SHORT: IMPORTANCE OF GENETIC TESTING IN DIAGNOSIS OF LYNCH SYNDROME – A CASE REPORT

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Introduction: Among diseases, cancer has the second highest mortality rate worldwide. Among cancers, colorectal cancer (CRC) is the third most diagnosed cancer and the second most common cause of cancer-related deaths worldwide. Hereditary non-polyposis CRC syndrome or Lynch syndrome (LS) accounts for 1%-3% of all CRC diagnoses. Knowledge of genetic susceptibility and a better understanding of the genotype/phenotype relationship in patients with LS is leading to more individualized surveillance recommendations. The aim of this paper is to emphasize the importance of genetic testing in the diagnostic process of hereditary CRCs, especially Lynch syndrome. **Case Report:** The present paper is a case report of a 55-year-old male patient who was diagnosed with synchronous CRC, presenting two different types of cancer appeared independently. One of the tumours was located proximally, at the level of transverse colon: a 5/4 cm cribriform adenocarcinoma pT3N0(0/15)M1aL0V1Pn0Ro stage IVA, the other one distally, at the level of sigmoid colon: a 7/6 cm mucinous adenocarcinoma pT3N2a(5+/18)M0L0V0Pn0Ro stage IIIB. The patient presented a 1.7/1/0.5 cm metastasis in the liver originated from the proximal tumour. Initially, a left hemicolectomy was performed. The immunohistochemical (IHC) profile, taken three weeks after the diagnosis, showed microsatellite instability with positive test for MLH1, PMS2 and MSH6 and Lynch syndrome was suspected. Repeated IHC test after six months showed positive test also for gene PMS2 which confirmed diagnosis of Lynch syndrome. Treatment included alternating different types of chemotherapy medicines and constant administration of Bevacizumab. Tumour markers decreased in a year: CA 19-9 from 106.5 U/ml to 59.13 U/ml and CEA from 74.76 U/ml to 29.08 U/ml. Pulmonary affection was observed due to treatment. Liver metastasectomy was performed. After two years the patient had cancer recurrence. **Discussions :** Molecular profiling of patients with LS has been shown to guide targeted therapies, such as immunotherapy. We mention that definitive surgical treatment for patients with LS is total colectomy which reduces the appearance of metachronous tumours. Specialists involved in the care of patients with CRC should be familiar with the main hereditary cancer syndromes and refer patients to specialized cancer genetic units for adequate genetic counseling. **Conclusions:** In conclusion, genetic testing has a key role in identification and management of patients with LS and other hereditary CRCs. Although hereditary CRCs represent a small part of CRC syndromes, healthcare providers should be conscious about them and the importance of their early diagnosis.

Keywords: Lynch syndrome, colorectal cancer, immunohistochemistry, microsatellite instability

THE SILENT STRUGGLE : A CASE OF ASYMPTOMATIC SEVERE HEPATOMEGALY

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Introduction: Cardiovascular symptoms often lead patients to seek medical attention, yet occasionally, such presentations reveal unexpected underlying pathologies. **Case Report:** We present a case of a 64-year-old patient who initially presented to the general practitioner with dyspnoea and asthenia. The physical examination showed hepatomegaly, with a liver span of 20 cm, and a following cardiology consult disclosed sinusal tachycardia. In this context, the patient was recommended a gastroenterology consult. Further assessment revealed severe hepatomegaly, with a palpable liver up to the level of the left hypochondrium, respectively the right iliac spine, with a liver of hard consistency, and irregular contour with sharp edge, that prompted further exploration. The serological tests showed a moderate microcytic anemia, cholestasys, a very high level of Carcinoembrionar Antigen (CEA) and a negative Fecal Occult Blood Test (FOBT). Liver ultrasonography indicated numerous hypoechoic and hyperechogenic lesions of 1-4 cm in size and undilated intrahepatic bile ducts, suggesting a differential diagnosis of hepatocellular carcinoma or metastasis. A subsequent computed tomography (CT) scan revealed an infiltrative tumor formation in the right hemicolon, near the ileo-cecal valve, with distant adenopathy, peritoneal carcinomatosis and extensive hepatic metastases. Additionally, acute segmental and subsegmental pulmonary thromboembolism was identified. The successive colonoscopy identified the tumor on the ascending colon and the biopsy of the lesions showed moderately differentiated colonic adenocarcinoma. **Discussions :** The

advanced stage of colon cancer was not expected given the patient's mild and non-specific symptoms, including lacking a change in bowel habits or abdominal pain. This case underscores the significance of meticulous evaluation in the face of seemingly unrelated clinical manifestations, presenting the relevance of thorough investigative strategies, as well as broad differential considerations and the importance of the colon cancer screening in the general population. **Conclusions:** Early recognition and interdisciplinary collaboration are pivotal in optimizing patient outcomes, particularly in cases involving metastatic malignancies, where timely intervention and screening programs can significantly influence disease trajectory and treatment efficacy.

Keywords: hepatomegaly, liver metastasis, colonic cancer

METASTASES OR PRIMARY CANCER: A DIAGNOSTIC CHALLENGE

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Introduction: Pulmonary metastases can be a common occurrence in various malignancies, including renal cell carcinoma (RCC). The diagnosis of lung metastases originating from renal tumors can present diagnostic challenges, often being misdiagnosed as a non-small cell carcinoma (NSCLC), one of the most common lung cancers amounting to 85% of all diagnosed lung cancers. **Case Report:** We present the case of a 73-year-old male patient hospitalized for surgery at County Clinical Hospital Targu Mures with an initial diagnosis of NSCLC. After the removal of the 4 bioptic fragments having a dimension of 15x6 mm, the specimens were sent to the Pathology Department for further analysis. The microscopic analysis of the cells revealed a tumoral proliferation consisting of large-sized cells, with visible celular limits, abundant eosinophilic cytoplasm, and enlarged pleomorphic nuclei, that sometimes imitate glandular lumens. The immunohistochemical profile revealed negative reactions with TTF1 and p40 markers and positive reactions with panCK and PAX 8 markers. The immunohistochemical profile leads to the definitive diagnosis of pulmonary metastases of renal origin, thus changing the initial diagnosis **Discussions :** The misdiagnosis of lung metastases arising from RCC as NSCLC shows the complexity of diagnosing pulmonary nodules, several factors contributing to the diagnostic challenge. This fact can lead to the overlooking of primary neoplasms, which can further lead to grave consequences if not diagnosed on time. **Conclusions:** Taking into consideration the limiting diagnostic factors and the similarities between RCC and NSCLC through imaging techniques, this case leads us to the conclusion that thorough and fast investigations are important whenever it comes to tumor patients, as a timely correct diagnosis could always make a difference.

Keywords: RCC, NSCLC, TTF1, p40

CONGENITAL VASCULAR LESIONS IN A NEWBORN: A DIAGNOSTIC CHALLENGE

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Introduction: Cutis marmorata teleangiectatica congenita (CMTC) is a rare cutaneous vascular anomaly manifesting with persistent cutis marmorata, telangiectasia, and phlebectasia. The most common distribution is over the lower limbs, with cutaneous atrophy and ulceration appearing rarely. CMTC is usually connected to other congenital abnormalities like under-/overgrowth of a limb. **Case Report:** We present the case of a full-term male newborn delivered via spontaneous vaginal delivery to a second-parous mother and hospitalized in 2023 at Targu Mures Emergency Clinical County Hospital Maternity, a tertiary hospital. At birth, the patient weighed 2940 grams and presented reticular telangiectatic erythema in a red-violet spectrum with localized distribution at the lower limb level and a sacral hemangioma. Apart from these findings, no additional malformations or issues were noted, and the infant was assigned a 10/10 APGAR score. During the hospitalization, the patient developed physiological neonatal jaundice, for which 48 hours of phototherapy were performed on the newborn. Based on the persistence and morphology of erythematous plaques meeting the following major criteria proposed by Kienast and Hoeger in 2009, including congenital reticulate erythema, absence of venectasia and unresponsiveness to local warming, the diagnosis of CMTC was confirmed, and further screenings and laboratory tests were conducted to identify if other associated anomalies were present. **Discussions :** Studies show that 42.5% of patients diagnosed with CMTC

present other associated abnormalities, with the most common ones being body asymmetry and neurological defects like seizures or developmental delays, while the rarest occurring anomalies being the ophthalmological ones. **Conclusions:** Considering that establishing the correct diagnosis in newborns presenting skin lesions is not always straightforward and the increased risk that CMTC is related to other diseases, regular follow-ups for these patients are crucial to promptly detecting associated developmental disorders, like body asymmetry or ophthalmological issues.

Keywords: CMTC, teleangectasia, newborn

THE ASSOCIATION OF RECURRENT NASAL POLYPOSIS WITH UNCONTROLLED BRONCHIAL ASTHMA -MANAGEMENT BY A MULTIDISCIPLINARY TEAM

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Introduction: The association of bronchial asthma (BA) with polypous rhinosinusitis (PRS) is common. The presence of PRS hinders proper air conditioning and favors focal infections that are often the starting point for asthma exacerbations. The diagnosis and treatment of both conditions are important and involve a multidisciplinary approach. **Case Report:** A 20-year-old non-smoking female patient was admitted to the Pulmonology Clinic in Targu Mureș for exertional dyspnea, wheezing, mucopurulent cough, daytime sleepiness, snoring, and headache. The patient has had nasal polyposis for 5 years with 3 tonsillectomy surgeries followed by polyp recurrence and respiratory infections requiring antibiotics or oral corticosteroid therapy. The clinical exam noted nasal congestion, dark circles under the eyes, nasal voice, hypertrophic tonsils in the oropharynx, wheezing and snoring rales, BMI 32 kg/m2, retrognathia, Mallampati III, ACT questionnaire score of 12 points corresponding to uncontrolled asthma (normal 20-25 points). Chest X-ray shows pronounced interstitial markings, pharyngeal exudate showed no current microbial growth, negative ASLO, blood eosinophilia with 460 cells/mm3, IgE levels of 240 U/L, spirometry - moderate obstructive ventilatory dysfunction. ENT examination recommended craniofacial CT and repetition of tonsillectomy in the near future. We established treatment with combined inhaled corticosteroids and bronchodilators, antibiotics (macrolides), mucolytics, topical antiallergics (corticosteroids and antihistamines), oral antiallergics, and considered biologic therapy with benralizumab (anti-alpha chain of the interleukin-5 receptor monoclonal antibody), 30mg subcutaneously, every 4 weeks (2 months), then every 8 weeks. The clinical condition improved significantly, blood eosinophils decreased, and the ACT questionnaire score increased to 22 points (indicating improved asthma control). Preoperative sleep study was recommended to assess the presence of obstructive sleep apnea, as well as pneumococcal and influenza vaccination. **Discussions :** The association of BA with recurrent PRS confers severity to both diseases, decreasing the quality of life and leading to multiple asthma exacerbations, focal infections, and the onset of obstructive sleep apnea with intellectual decline, cardiovascular and metabolic complications. The treatment of these associations required both local treatment for PRS and BA, as well as a modern approach with anti-inflammatory biologic treatment with monoclonal antibodies (benralizumab being known for reducing symptoms and exacerbations in severe BA with associated PRS). **Conclusions:** The presented case with the association of recurrent PRS and uncontrolled BA in a young patient required complex investigations and a combined multidisciplinary approach. Biologic treatment has contributed to significantly reducing the symptomatology and to improving the quality of life.

Keywords: severebronchialasthma, nasalpolyposis, monoclonalantibodies, multidisciplinarymanagement

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THE POWERFUL LINK BETWEEN THE MIND AND THE BODY

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Introduction: Somatic symptom disorder is a psychiatric condition in which patients experience somatic issues due to psychological distress . It has a high prevalence in women, and can appear associated with affective disorders. It is frequently misdiagnosed and mistreated by physicians that confuse it with somatic pathologies, leading to excessive investigations and interventions. **Case Report:** A 71 year-old woman is admitted to the Psychiatric Clinic 1 after numerous hospitalizations in the last 6 months. Her chief complaints are leg pain, diffuse

abdominal pain, insomnia and pruritus. Her medical history includes other comorbidities(cardiac, diabetes, orthopedic, dermatological), for which she seeks constant help and has scheduled many consultation, however, her test results showed nothing that could explain her symptoms. The leg pain is constant, appears mostly in her right leg (but can sometimes appear in her left leg also), and affects her sleep pattern, leading to insomnia. She admits to self-medication, mostly painkillers for her symptoms, with no improvement. The psychiatric interview revealed a major depressive episode, with somatic symptoms, and was prescribed pharmacological treatment with of Duloxetine, Zopiclone, Haloperidol and Levomepromazine. She has also participated in group therapy, twice a week. After more than a month of hospitalization her symptoms reduced drastically. She was discharged with home recommendations for treatment, psychotherapy and periodic consults. **Discussions :** Despite the fact that the patient self-medicated with painkillers, their effect was unsatisfactory, which led her to increase the dosage and experience withdrawal symptoms when she was admitted to the hospital, as there was no medical reason for her to continue this treatment. Seeing that the patient's overall well-being and functioning improved after receiving treatment for the undiagnosed depression, we can clearly state that the symptoms were due to somatization. Both diffuse chronic pain and psychogenic pruritus are common manifestations of somatic symptom disorder, alongside the multiple hospitalizations in which the investigations showed no explanation for the symptoms. **Conclusions:** Although the cause or the cause and mechanism of somatic symptom disorder are not fully known, it is a real condition that should be taken into consideration in order to avoid a misdiagnosis. Without proper treatment, patients can resort to drug and alcohol abuse and, in extreme cases, suicide.

Keywords: Somatic symptom disorder, Major depressive disorder, Insomnia, Psychogenic pruritus

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BILATERAL OVARIAN SEROUS CYSTADENOMA OF BORDERLINE TYPE

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Introduction: Bilateral ovarian serous cystadenoma of borderline type is a unique tumor originating from the ovarian epithelium, characterized by cysts adorned with delicate papillary formations along their inner lining. This distinctive pathology reflects a complex interplay between benign and malignant features, leading to its classification as "borderline." While generally associated with a favorable prognosis, the intricate nature of this tumor underscores the need for vigilant monitoring and thoughtful management, acknowledging the potential for progression towards invasive carcinoma. **Case Report:** We present a case of a 55-year-old patient admitted to the Surgery Department with a bilateral ovarian tumor, managed through bilateral salpingo-oophorectomy. Macroscopic examination of the excised specimen revealed a multilocular ovarian cyst with an intact wall, measuring 210x150x70 mm, containing slightly adherent gelatinous greenish-yellow material on the internal wall, along with numerous vegetations upon sectioning. Microscopic analysis of tissue sections demonstrated a cystic structure enclosed by a fibrous wall, exhibiting tumor proliferation characterized by complex architecture comprising numerous papillae with conjunctive-vascular axes. These papillae displayed a hierarchical branching pattern, leading to groups of epithelial cells without conjunctive-vascular axes (micropapillae) or isolated epithelial cells. The papillae were lined by pseudo-/stratified cubo-cylindrical ciliated epithelium, showing minimal to moderate nuclear pleomorphism, hyperchromatic nuclei, visible nucleoli, and rare typical mitotic figures. Notably, no foci of stromal microinvasion were observed on the examined sections. The final diagnosis was that of a bilateral ovarian serous cystadenoma of borderline type, staged as pT1b, FIGO IB, L0, V0, Pn0. **Discussions :** The prognosis for bilateral ovarian serous cystadenoma of borderline type, particularly when staged as pT1b with FIGO IB classification and absence of lymphatic invasion (L0), venous invasion (V0), and perineural invasion (Pn0), is generally favorable. These tumors typically entail a low risk of recurrence or progression to invasive carcinoma. **Conclusions:** Nevertheless, regular follow-up evaluations are crucial for patients due to the slight possibility of recurrence or transformation over time. Overall, with appropriate management and surveillance, the prognosis for this specific tumor subtype tends to be excellent.

Keywords: Bilateral ovarian serous cystadenoma, borderline, salpingo-oophorectomy

TODDLER WITH FEBRILE SEIZURES OR HEART BLOCK? AN INTERESTING CASE REPORT IN PEDIATRICS

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Introduction: Stokes-Adams syndrome characterizes a primary mechanism of syncope stemming from cardiac origins, resulting from disruptions in cardiac rhythm. These rhythm disturbances can manifest as either a fast or slow heart rate, presenting as either regular or irregular patterns. **Case Report:** A three-year-old patient was admitted to the hospital due to experiencing myoclonus, gaze fixation and fever. These symptoms were preceded by episodes of vomiting. Upon admission, the family reported that the child had experienced self-limited generalized tonic-clonic seizures lasting 3-4 minutes. The child's grandfather, who has medical experience, likened the convulsions to a myocardial infarction. Following the convulsive episode, the patient's status reveals pupils of equal size and preserved photomotor reflex. Initially, the diagnosis of generalized febrile convulsions might be considered, but upon examination, additional changes were identified. The clinical examination shows rhythmic heart sounds, a low ventricular rate of 48 beats per minute, a systolic murmur at the mitral valve, warm extremities and a congested pharynx. The electrocardiogram indicates a third-degree atrioventricular block along with severe bradycardia and a prolonged QT interval (QTc=0.50second). The cardiac ultrasound shows the ejection fraction of the left ventricle measuring 55% and no abnormalities in the cardiac structure are found. The treatment administered included a 1000 ml intravenous infusion of glucose and electrolytes per 24 hours, 40 ml of 15% mannitol, cortisone hemisuccinate and 0.5 ml per day of intramuscular phenobarbital 10%. The patient's condition showed improvement with no recurrence of syncopal episodes. Bradycardia persisted at 46 beats per minute with a slight tendency to increase upon mobilization. The electrocardiogram continues to exhibit the same changes during hospitalization. **Discussions :** In this case, initially, bradycardia was linked with acute cerebral edema following a seizure, a connection that might have postponed the pacemaker implantation procedure. Given the potential severity of the case, the patient is promptly referred for pacemaker implantation. In children, third-degree atrioventricular block can stem from congenital or acquired type. In the absence of congenital heart defects, the congenital type is often associated with neonatal lupus erythematosus. Other causes include cardiomyopathies, Lyme carditis, acute rheumatic fever or myocarditis. **Conclusions:** Severe bradycardia, third-degree atrioventricular block type and long QT intervals led to the interpretation of the convulsive crisis as cardiac syncope. A potential congenital origin is suspected. Additionally, the parents noted reduced and irregular heart sounds since infancy. Neither parent has a known history of heart disease.

Keywords: Stokes-Adams syncope, Third-degree atrioventricular block, long QT syndrome

YOUNG FEMALE PATIENT WITH HENOCH-SCHÖNLEIN PURPURA PROGRESSING TO IGA NEPHROPATHY- A CASE REPORT

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Introduction: IgA nephropathy is notable as the primary glomerular nephropathy, often progressing to end-stage renal failure. The condition is characterized by mesangial deposits of IgA. **Case Report:** We present the case of a 30-year-old patient who was diagnosed at the age of 15 with Henoch-Schönlein purpura with important digestive manifestations which did not respond to symptomatic therapy and which required systemic corticotherapy for 6 weeks. At that time the only renal manifestation was macroscopic hematuria without renal failure. The persistence of episodes of macroscopic hematuria required the performance of a renal biopsy which revealed immunohistological characteristics of IgA nephropathy- glomerular deposits of IgA globally and diffusely at the mesangial level. Despite the immunosuppressive therapy that started with Prednisone at a dose of 40 mg per day, to which was added, over 3 months, Imuran 100 mg three days a week, later adjusted to 50 mg four days a week, the patient's clinical course showed an unfavourable progression. Treatment with Imuran continued for 2 years. Important to emphasize is the fact that serum creatinine increased constantly by approximately 0.5 mg/dl annually, despite general measures to limit the progression of chronic kidney disease. The evolution was towards the terminal stage of renal failure. The latest clinical and laboratory assessment showed elevated levels of nitrogen

retention products (serum creatinine = 4.07mg/dl, serum urea = 87mg/dl), alongside the presence of urinary syndrome (proteinuria = 4.8g/24h and dysmorphic red blood cells - 300 ery/µl). Abdominal ultrasound confirmed chronic changes characterized by scleroatrophic kidneys. **Discussions :** The typical course of Henoch-Schönlein purpura often leads to complete resolution without the need for treatment, though some patients may require hospitalization for symptom management. In our patient's case, corticosteroid therapy was necessary. Unfortunately, despite this treatment, the purpura became chronic and progressed to IgA nephropathy, leading to terminal-stage chronic renal failure. Due to the patient's youth and fertility, Cyclophosphamide treatment was not considered at the time of IgA nephropathy diagnosis. Considering the progression of the disease, a kidney transplant is being considered as a viable option. Alternative methods for renal function supplementation are also under discussion with continuous ambulatory peritoneal dialysis being the preferred choice by the patient. **Conclusions:** It's essential to highlight the unfavourable progression of both Henoch-Schönlein purpura and IgA nephropathy in this case. Despite repeated courses of immunosuppressive therapy with Imuran and corticosteroids, the disease progression remained unstoppable.

Keywords: IgA nephropathy, Henoch-Schönlein purpura, renal biopsy

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NAVIGATING PULMONARY HYPERTENSION: INSIGHTS FROM A CLINICAL CASE

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Introduction: Pulmonary arterial hypertension includes different conditions leading to elevated pressure in the pulmonary arteries. Five main groups of pulmonary hypertension are acknowledged, each involving adverse vascular remodeling such as obstruction, stiffening, and vasoconstriction in the pulmonary blood vessels. Without proactive treatment, these changes may lead to right ventricle hypertrophy and failure. **Case Report:** A 73-year-old female patient was admitted to the Internal Medicine Clinic 2 in August 2022 presenting with progressive exertional dyspnea, fatigue, and dry cough. Her medical history includes arterial hypertension, type 2 diabetes mellitus, hypothyroidism, and liver cirrhosis since 2018 due to hepatitis C infection, with sustained virological response under Ledipasvir/Sofosbuvir treatment. Symptoms began approximately 3 years ago, and suspicion of pulmonary arterial hypertension (PAH) was raised through transthoracic echocardiography. A pulmonary CT angiogram ruled out chronic pulmonary embolism. Right heart catheterization was performed a year ago, revealing severe pulmonary hypertension, elevated pulmonary resistances (16 woods), and mean pulmonary artery pressure of 46 mmHg. The patient was referred to our service for reassessment and inclusion in the National Pulmonary Hypertension Program. Given worsening symptoms and high likelihood of PAH on echocardiography (severe tricuspid regurgitation, TAPSE 16 mm, PAPs= 92 mmHg), the right heart catheterization was redone, leading to a diagnosis of precapillary pulmonary hypertension (PVR 15UW, PAPm 39 mmHg, PCW 4). Treatment with an endothelin receptor antagonist, Macitentan 10 mg, was initiated. Subsequent clinical and laboratory evaluations showed a favorable evolution without worsening symptoms or liver function parameters. **Discussions :** Portopulmonary arterial hypertension is a rare but serious complication that can occur in individuals with liver disease, particularly those with cirrhosis. In this case, liver cirrhosis due to hepatitis C virus from the patient's history, treated with the antiviral medication Ledipasvir/Sofosbuvir, raises suspicion of an association of this therapy with the development of pulmonary arterial hypertension. Endothelial dysfunction and abnormal vascular remodeling are key features of pulmonary hypertension, and certain medications, including some direct-acting antivirals, may interfere with endothelial function or contribute to pulmonary vascular changes, leading to increased pulmonary arterial pressure. **Conclusions:** In conclusion, pulmonary hypertension (PH) encompasses various conditions leading to elevated pressure in the pulmonary arteries, often resulting from adverse vascular remodeling. Our case highlights the importance of vigilant monitoring and management in patients with liver disease and potential risk factors for PH, including certain medications such as antivirals. Early recognition and intervention are essential for improving outcomes and quality of life in individuals with PH.

Keywords: pulmonary arterial hypertension, right heart catheterization, portal hypertension, endothelin receptor antagonist

THE IMPORTANCE OF EARLY DIAGNOSIS OF CYSTIC FIBROSIS IN INFANCY- A CASE REPORT

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Introduction: Cystic fibrosis (CF) is a rare autosomal recessive genetic disease that is life-shortening and is caused by mutations in the gene encoding for the CFTR protein. Being a multisystem disease, it affects various systems throughout the body, including the respiratory tract, pancreas, skin and gastrointestinal tract, and more. Since there is no definitive cure, treatments for CF focus on managing its symptoms and complications, ultimately resulting in the progression of the disease to be fatal. Therefore, early diagnosis and optimal management are crucial for the patient to increases the quality of life and potentially extend median life expectancy to around 40 to 50 years of age. **Case Report:** We present the case of a 3-month-old female infant patient with failure to thrive and persistent vomiting since birth. She was admitted to the Pediatrics Clinic 1 at the Emergency County Hospital in Târgu Mureș. Upon admission, the baby appeared weak and slightly smaller and underdeveloped compared to other infants of the same age. An initial clinical suspicion of gastroesophageal reflux led to the administration of an anti-reflux formula to alleviate symptoms. However, there was no improvement, prompting consideration of other conditions. A differential diagnosis, which included cystic fibrosis, was made. Following this, sweat testing was conducted as a confirmatory test. Additionally, a genetic test for CFTR mutation was carried out subsequently. **Discussions :** The suspicion of cystic fibrosis as the final diagnosis for our patient is confirmed by the clinical symptoms mentioned previously, including failure to thrive and gastrointestinal symptoms such as gastroesophageal reflux. In addition, the confirmatory sweat test showed positive results, confirming the diagnosis of CF. Moreover, the positive result obtained from the genetic test for CF offers additional validation of the final diagnosis. Following confirmation, the patient is supervised and referred for further evaluation and management planning with follow-up. **Conclusions:** The patient's management requires a multidisciplinary approach involving various disciplines and regular, periodic follow-ups. It is crucial to promptly identify and treat symptoms or complications arising from CF. Additionally, it is essential to monitor the progression of the disease. The presented case highlights the importance of early diagnosis and effective management of CF.

Keywords: Cystic fibrosis, genetic disease, pediatrics, sweat test

CAPILLARY TELANGIECTASIA OF THE BASAL GANGLIA: AN INTERESTING ILLUSTRATIVE CASE.

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Introduction: Capillary telangiectasia is a tiny, harmless, vascular malformations that is usually found in pons. They are often discovered during autopsies or MRI scans without causing any noticeable symptoms. It's prevalence in population-based autopsy and radiographic (MRI) series is 0.7%. **Case Report:** We describe the case of 88-year-old women, who died suddenly in the bus station. The autopsy was performed at Targu Mures Institute of Forensic Medicine. Macroscopic examination revealed a severe coronary atherosclerosis, associated with myocardosclerosis. At the level of basal ganglia on the left side of the brain, a small point-shaped, hemorrhagic lesion was identified. Histologically, myocardosclerosis and severe coronary atherosclerosis were confirmed. Acute subendocardial ischemic lesions of myocardial fibers were also revealed. Multiple-ecstatic single-walled endothelium that resemble capillary type vessels adjacent to normal brain parenchyma were observed and the lesion was diagnosed as capillary telangiectasia of the basal ganglia. **Discussions :** Although capillary telangiectasias often present no symptoms, they can appear in diverse brain regions, with imaging crucial for diagnosis, occasional histological confirmation required, and follow-up scans recommended for monitoring stability, particularly in lesions consistent with capillary telangiectasia. **Conclusions:** Capillary telangiectasia of the basal ganglia is a rare, medically benign lesion, that rarely required surgical resection. However, the definitive diagnosis of this lesion can only be made after a histopathological examination.

Keywords: capillary telangiectasia, basal ganglia, histopathological definitive diagnosis

BIOCHEMICAL APPROACH OF A TYPE 2 DIABETIC PATIENT WITH UROLITHIASIS AND OTHER COMORBIDITIES – A CASE REPORT

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Introduction: Diabetes mellitus is a population-level disease with growing incidence. Urolithiasis is a common medical condition with increasing prevalence, affecting mainly 50-59 years old males. Its main risk factors are familiar predisposition, obesity, diabetes mellitus, dietary habits and urinary tract infections. **Case Report:** A 40 years old male was assisted as an ambulant patient, feeling dizzy and exhausted. He presented overweight and cigarette smoking (2 packs per day). Bloods samples showed a value of Hb1Ac=13.8% suggesting diabetes onset. The patient refuses any treatment, except dietary supplement (Diavit) and nutritional restrictions. Two months later his glycated hemoglobin value was 9.6%, at that time he consented diabetologist's investigation. To rule out the diagnosis of autoimmune cholangitis, detection of anti-mitochondrial antibodies (AMA) and antinuclear antibodies (ANA) were performed, with negative results. In addition insulin auto-antibodies were absent and peptide C level was normal, diagnosing him with type 2 diabetes mellitus. Metformin treatment was initiated, presenting HbA1c=6.8% after 4 months of his first symptoms. Six years later his blood tests showed dyslipidemia with elevated values of total cholesterol (281 mg/dl), LDL-cholesterol (211,4 mg/dl), triglycerides (152 mg/dl), and mild hyperglycemia with serum glucose of 131 mg/dl. During 2021-2022 he presented constantly elevated fasting glucose values (exceeding 200 mg/dl), so Dulaglutide therapy was initiated in August 2022. In February 2024, fifteen years after his diabetes was diagnosed, he presented an episode of macroscopic hematuria followed by the discharge of 2 small dark brown stones. Doctors suggested him to obtain a stone's sample to be analyzed. Hyperglycemia (values over 250 mg/dl) and dyslipidemia currently persist, uricemia is normal; he refused to be monitored by a diabetologist during the last few years. **Discussions :** Type 2 diabetes diagnosis and therapy can be challenging, especially if compliance issues occur. It presents a prevalence link with urolithiasis, because insulin resistance decreases the ammonium production in the kidney, lowering the urinary pH, followed by hyperuricemia and the consequent stone formation. Hyperglycemia lowers urine volume and increases calcium urinary concentration, favorizing urolithiasis. Smoking and overweight increase the risk of urolithiasis. Investigation of urinary sediment and chemical analysis of the eliminated stones can help to clarify the type of the crytals. **Conclusions:** Diabetes mellitus is a chronic disease which predisposes to the development of several complications and comorbidities. Urolithiasis is a challenging condition, presenting different etiologies. Identification of the stone type enhances the prevention of recurrent episodes by nutritional recommendations.

Keywords: type 2 diabetes mellitus,, glycated hemoglobin, urolithiasis

THE MANAGEMENT OF A PLEURAL EMPYEMA DURING PREGNANCY: A SENSITIVE APPROACH

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Introduction: Pleural empyema is a condition characterized by the accumulation of purulent, inflammatory fluid in the pleural cavity, as a consequence of complicated pneumonia. Pregnant women are more susceptible to respiratory infections due to hormonal changes leading to an inadequate immune response, which can be harmful for both the mother and the fetus. **Case Report:** We report the case of a 39-year-old non-smoking woman, who denies occupational exposure to respiratory pollutants, pregnant in 27 weeks G2 P2, hyperstenic, allergic to trimethoprim/sulfamethoxazole. The patient presented herself to the ER in January 2024, accusing a mucopurulent cough, dyspnea, myalgia, low-grade fever and thoracic pain. She was transferred to the Pneumology Clinic for further investigations and treatment. On physical examination, her SpO2 was 83% and the auscultation of the lungs revealed diminished vesicular breath sound with bilateral basal crackles. Due to her advanced pregnancy, the examination of the abdomen was difficult to assess. Furthermore, the radiologic examination was not performed, considering its negative effect on a fetus. As an alternative, lung ultrasound was conducted, which revealed, at the level of the left costodiaphragmatic sinus, a transonic area of 2-3 cm with izo-hyperechogenic bands located peripherally, suggesting a left pleural effusion, indicating the necessity of a thoracocentesis. Under ecographic guidance and local anesthesia, 60 ml of cloudy, yellow fluid was drained. The microbiological exam of

the pleural effusion detected the presence of Streptococcus pneumoniae. The paraclinical examination indicated increased leucocyte, neutrophil and fibrinogen levels and low hemoglobin levels. These results led to the final diagnosis of pneumococcal pneumonia with left pleural empyema. The empiric antibiotic therapy consisted of clindamycin, followed by meropenem, after receiving the antibiogram, which led to the lowering of the inflammatory markers and overall improvement. Therefore, the patient was discharged after 9 days of hospitalization without additional treatment. **Discussions :** The patient returns for regular check-ups, presenting an improved condition, the quantity of the pleural fluid remaining low. We are now waiting for the birth to occur, so we can evaluate the potential consequences of the difficulties arisen during the pregnancy. **Conclusions:** This is an interesting case because of the lack of radiological images as well as the struggles encountered while performing the physical examination. Moreover, the pathogen isolated from the pleural effusion is more likely to cause lobular pneumonia, rather than empyema, not to mention the restricted range of antibiotics which can pose minimal risk when administered to expectant women.

Keywords: empyema, pregnancy, pleural effusion, ecographic

CARDIOVASCULAR INVOLVEMENT IN MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN (MIS-C): A CASE REPORT WITH EXTENSIVE VASCULITIS IN MIS-C

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Introduction: Multisystem Inflammatory Syndrome of Children (MIS-C) is a new disease defined post-viral myocarditis and inflammatory vasculopathy of children following COVID-19 infection. **Case Report:** We report a case of 13-year-old male with MIS-C presented with cardiac manifestations associated with extensive vasculitis. The child was transferred from an outside institution to the emergency department of our tertiary center with a 2-weeks history of generalized weakness, prolonged fever, rash, conjunctivitis, abdominal pain, limping, left shoulder pain, palpations. On presentation, the patient was ill looking with tachycardia, cardiac gallop with III/VI regurgitant murmur at the apex, decreased lower extremities pulses, hepato-splenomegaly. Inflammatory and procoagulant tests (C-reactive protein, ferritin, interleukin-6, fibrinogen, D-dimer), cardiac biomarkers (troponin I, NT-proBNP) were elevated. The real-time polymerase chain reaction (RT-PCR) test for SARS-CoV-2 infection was negative, but the serology was positive. Laboratory workup have ruled out infectious and malignant causes as well as known rheumatological causes. Echocardiography pointed out LV systolic dysfunction (LVEF 46%), apical septal hypokinesia, moderate mitral valve regurgitation, coronary arteries dilatation. Doppler ultrasound and CT scan showed evidence of vasculitis extending to the abdominal organs with splenic and renal infarcts, and evidence of dorsalis pedis arteritis. According to WHO criteria the patient`s diagnosis was MIS-C. Treatment was started immediately with intravenous immunoglobulin, methylprednisolone, anticoagulants, in addition to angiotensin converting enzyme inhibitors, beta-blockers, spironolactone, with outstanding favorable evolution. After a 36-day hospital stay, the patient was discharged home in stable condition with further medical management. **Discussions :** MIS-C is a new emerging medical diagnosis that occurs in response to a SARS-CoV-2 infection. It has a variable presentation. This pathological condition is described a Kawasaki-like syndrome that affects small to medium vessels. This teenage patient presented with prolonged fever, elevated inflammatory markers and manifested multiorgan involvement as well as a positive serology test for recent SARS-CoV-2 infection, meeting the WHO criteria to diagnose MIS-C. Distinct features of MIS-C manifested in this case include predominance of gastrointestinal symptoms manifested as severe abdominal pain, and cardiovascular symptoms presented as palpitations, left shoulder pain and limping. Because MIS-C could be a life-threatening multisystem condition, treatment options are needed urgently. The aim of MIS-C treatment is to suppress systemic inflammation, improve cardiac function, and prevent long-term sequelae. **Conclusions:** The phenotype of MIS-C associated with SARS-CoV-2 infection may include an extensive large-vessel vasculitis. Early recognition and diagnosis of this rare presentation will raise knowledge about the nature of vascular complications associated with MIS-C.

Keywords: Multisystem Inflammatory Syndrome of Children, SARS-CoV-2 infection, cardiac manifestations, vasculopathy

IS IBUPROFEN EFFICIENT FOR THE TREATMENT OF PATENT DUCTUS ARTERIOSUS IN PRETERM AND LOW BIRTH WEIGHT INFANT?

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Introduction: Patent ductus arteriosus (PDA) is extremely common in premature neonates and is related to gestational age and respiratory status. One of the most frequent pathologies preterm babies can encounter is respiratory distress syndrome (RDS). **Case Report:** We present the case of a premature infant, around 31/32 weeks of gestational age, a physiologic birth, cephalic presentation, weighing less than 1600g, APGAR score of 8/1 min, 9/5 min. The preterm infant presented with moderate respiratory distress syndrome: expiratory moaning, and subcostal retraction. Blood gas analysis revealed acidosis (pH 7.26), hypoxemia (PaO2= 48 mmHg), PaCO2= 40 mmHg, and HCO3= 17,7 mEq/L. An umbilical venous catheter was inserted for parenteral nutrition. The first management was to place the infant under nasal continuous positive airway pressure (CPAP) with end-expiratory pressure of 6 cmH2O and FiO2 of 30%. At the echocardiography exam at 72 hours of life, it was discovered a cardiac dysrhythmia, heart rate 148 b/m, a patent foramen ovale, pulmonary artery flow (PA) = 0,85m/s, ascending aorta flow (Ao)= 0,8m/s, and a patent ductus arteriosus (PDA= 2,8mm) with transductal shunt orientation left-right. Preductal oxigen saturation SpO2 was 97% and postductal SpO2 98%. The persistence of the ductus arteriosus led to a decreased perfusion to the brain and abdomen observed at head ultrasound (resistive index (RI) measured in the anterior cerebral artery=0.89 and diastolic velocity = 1,3 mm/s) and abdominal echography (RI measured in the celiac trunk =0.86 and diastolic velocity = 1,13mm/s). The treatment approach was intravenous Ibuprofen 10 mg/kg/body weight for the first dose, followed at 24-hour intervals by another two doses of 5 mg/kg each. **Discussions :** The PDA closed within the first 72 hours after treatment initiation. Echocardiography was performed before treatment and 24 hours after each dose and showed decreased diameters of the patent ductus arterious each time (2,8 mm - 2,5 mm - 1mm - 0mm). The results of the head ultrasound decreased from RI 0.89 to 0,75 and for the celiac trunk improved as well from 0.86 to 0,76. **Conclusions:** In conclusion the pharmacological treatment with Ibuprofen was efficient in closing PDA in a preterm infant with respiratory distress syndrome. The closer of PDA was esential to prevent brain damage and other complications caused by low perfusion.

Keywords: patent ductus arteriosus, Ibuprofen, respiratory distress, premature infant

ONE OF THE FACTORS WHICH CAN LEAD TO ALTERED LEVELS OF CONSCIOUSNESS – EMERGENCY CASE REPORT

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Introduction: To find the real etiology of the twiling state could represent a challenge. Acute kidney injury is characterized by an abrupt increase of serum creatinine and urea levels along with a glomerular filtration below 15ml/min which can lead within hours or days to cognitive dysfunction. **Case Report:** We present a case of a 53 years old women, arrived at the emergency room with the following vital signs: obnubilation state , with tachypnea (respiratory rate 25-30/min), respiratory effort, intercostal retraction, oxigen saturation pO2 90%, heart rate 99b/min, high blood pressure 188/90 mmHg and Glasgow Coma Scale (GCS) 9 points. Blood gas analysis revealed sever metabolic acidosis with hiperkalemia: Ph= 6,9, pCO2=18.9 mmHg, K+= 7.21 mmol/L, HCO3=4.08 mmol/L. Blood tests showed microcytic hypochromic anemia, elevated levels of trombocytes (724.00 x 103/µL), leucocites (31.12 x 103/µL), acute phase reactants: C-reactive protein (CRP)= 90mg/dl and procalcitonin (PCT)= 232 mg/dl and extremely elevated serum creatinine level (19mg/dl) and urea 232mg/dl with a rate of kidney filtration < 3ml/min. At the nephrology examination was performed abdominal ultrasound which demonstrated : an abnormal mass developed in the bladder 81/54 mm with marked bilateral hydronephrosis stage 4 caused by post-renal obstruction, renal parenchymal index for the right kidney was 1.36 cm and for the left kidney was 0.8cm. Considering the worsening status of the patient the best therapeutic approach was to perform an emergent percutaneous nephrostomy for the left kidney. In the following 36h the patient presented a diuresis of 3.6 L/24h, with a favorable evolution of metabolic acidosis (pH = 6.9 - 7.25 - 7.36 - 7.4) and renal function, observed from progressively decreased values of creatinine and urea. The neurological status improved, the patient became hemodynamically

stabel and was transferred to the urology department for further examinations. **Discussions :** The etiology of AKI is extremly wide, but we can classify it in 3 categories: pre-renal, renal and post-renal. One of the most serious complication is high serum urea levels which can cause uremic encephalopathy (UE). It is essential to make the differential diagnosis with the pathological conditions which can mimic UE such as cerebrovascular accidents, osmotic demyelination and infections. **Conclusions:** Considering the significant impact of AKI, a prompt recognition with early intervention is essential to prevent the sever complications of the brain, the kidneys and body physiology.

Keywords: cognitive dysfunction, acute kidney injury, metabolic acidosis, uremic encephalopathy

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SEVERE MITRAL REGURGITATION DUE TO ATRIAL FIBRILLATION

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Introduction: Atrial fibrillation is the most common type of cardiac arrhythmia. It is a supraventricular tachyarrhythmia characterized by disorganized atrial electrical activity leading to ineffective atrial contraction. **Case Report:** We present the case of a 52-year-old male patient with a history of arterial hypertension, dyslipidemia, obesity, mild mitral regurgitation, and atrial fibrillation since 2019, admitted to the Internal Medicine Clinic 2 in Târgu Mureș, complaining of rapid palpitations with an irregular rhythm, intermittent chest pain, dyspnea, and fatigue during moderate exertion. Despite a failed mixed cardioversion attempt in March 2021 (both drug loading with Amiodarone and external electric shock with 300J), a decision was made to focus on controlling heart rate due to various considerations, including the personal choice of the patient and the duration of atrial fibrillation. Further consultation with an electrophysiologist was suggested if symptoms persisted, potentially leading to an ablation procedure. The escalation of mitral regurgitation initially revealed on transthoracic echocardiography and later confirmed by cardiac MRI examination, with no signs of cardiac ischemia, necessitated urgent mitral valve replacement to address worsening congestive heart failure. Following mitral valve replacement with a Cardiamed Mechanical Prosthesis No.29, an episode of typical counterclockwise flutter occurred, and ultimately, ablation of the cavotricuspid isthmus with radiofrequency current was performed, resulting in a transition to sinus rhythm and implantation of a triple-chamber cardiac defibrillator in two stages to optimize cardiac function and prevent sudden cardiac death. This comprehensive approach aimed to address structural defects, manage rhythm disturbances, and improve the patient's overall quality of life and prognosis. **Discussions :** In the presented case, the failure and delay in treating atrial fibrillation resulted in the progression of mitral insufficiency, ultimately necessitating valve replacement. No other underlying cause was detected besides the tachyarrhythmic component. Due to the cardio-electrical instability and the history of tachycardia-induced cardiomyopathy, shortly after the valve prosthesis, the necessary ablation with radiofrequency current appeared. The patient's progress was gradually positive, marked by symptom alleviation and improvement in left ventricular ejection fraction. The mitral prosthesis consistently maintained mild transprosthetic regurgitation with a maximum gradient of 10.8/6.7mmHg. **Conclusions:** The case underscores the critical importance of timely and effective management of atrial fibrillation to prevent complications such as mitral regurgitation progression. Early intervention and rhythm control strategies could potentially mitigate adverse outcomes. Collaboration between different specialties allowed for comprehensive evaluation and tailored treatment plans, addressing both structural defects and rhythm disturbances.

Keywords: Atrial Fibrillation, Mitral Regurgitation, Radiofrequency Catheter Ablation, CRT-D

UNVEILING THE COMPLEXITY: A CASE OF ALCOHOL-INDUCED PSYCHOSIS WITH HETEROANAMNESTIC CHALLENGES

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Introduction: Alcohol-induced psychosis refers to transient psychotic symptoms triggered by excessive alcohol consumption or withdrawal. It manifests as hallucinations, delusions, and disorganized behaviour, typically resolving with abstinence or treatment. This condition underscores the profound impact of alcohol on mental health, necessitating intervention for both substance use and psychiatric symptoms. **Case Report:** A 43 year old

male patient with no documented history of psychiatric disorders is brought to the psychiatric emergency unit exhibiting the following symptoms: psychomotor hyperactivity, physical and verbal heteroagression, unpredictable and dissimulative behavior, hostile, uncooperative attitude, suspiciousness, interpretability, irritability, insomnia. Heteroanamnestic data reveals the patient's visual hallucinations and delusions of persecution, also his daily excessive consumption of alcohol. Emergency pharmacological treatment is ensured using sedatives in order to reach a rapid resolution of the aggressive episode. Given the severity of the symptoms the patient, the lack of insight and his non-cooperation is involuntarily admitted to the Psychiatric Department due to the fact that the patient represents a danger for him and for those around him. Based on anamnestic and heteroanamnestic data and exhibited symptoms is diagnosed with alcohol-induced psychosis with visual hallucinations and paranoid delusions after which treatment with antipsychotic, sedatives is prescribed and administered under supervision. Over the following weeks, treatment is adjusted according to the patient's emerging needs as the evolution of the psychotic episode is not a steady one, still exhibiting social withdrawal, bizarre, dissimulative behavior, suspiciousness and interpretability. **Discussions :** Following the evolution and further assessment is important in this case not only because of the later in life onset for a psychotic episode with no recorded psychiatric history, the patient being 43 years old, also it emphasises the importance of heteroanamnestic data collection considering the dissimulative behavior and the lack of insight of the patient who wants to be discharged. The information obtained from the family combined with the psychiatric, clinical and paraclinical examination can help to diagnose the patient quickly and correctly. **Conclusions:** This case aims to highlight the importance of following the duration, and development of symptoms in patients with alcohol-induced psychosis besides the importance of anamnesis and heteroanamnesis in order to offer proper diagnosis and further treatment. This can ensure a better outcome for the patient's overall quality of life.

Keywords: brief psychotic disorder, dissimulative behaviour, hallucinatory delusions

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SEVERE AORTIC STENOSIS IN A PATIENT WITH A MITRAL PROSTHESIS - WHAT DO WE DO?

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Introduction: Transcatheter aortic valve implantation (TAVI) has become the safer alternative to surgery when it comes to intermediate-to-high-risk patients. A particular challenge is represented by previous mechanical mitral prostheses, on account of their proximity to the aortic situs of implantation. Considering the currently limited literature regarding TAVI in patients with mitral prostheses, the objective of this case presentation is to emphasize that the benefits of these procedures outweigh the associated risks. **Case Report:** A 78-year-old woman was admitted describing dyspnea, fatigue, and typical chest pain, whose medical history revealed permanent atrial fibrillation, a mechanical bileaflet mitral prosthesis (Cardiamed no. 29) and tricuspid annuloplasty, both implanted 9 years prior. The clinical exam revealed an overweight patient with an aortic systolic murmur and a metallic click, with no further abnormalities. The electrocardiogram revealed atrial fibrillation, along with Q waves in DIII. Echocardiography demonstrated severe degenerative aortic stenosis with a gradient of 85/50mmHg, mild aortic regurgitation, mild tricuspid regurgitation, and a hypertrophic, normal diameter left ventricle with an ejection fraction of 60%. Considering the patient's age, surgical risk (EuroSCORE II of 5.47%), and medical history, TAVI was chosen to treat the aortic stenosis. The doctor performed a femoral transcatheter aortic valve implantation with a balloon-expandable Edwards Sapien 3 no. 26 valve, with good results. Post-TAVI echocardiography revealed a transaortic gradient of 22/11 mmHg with a mild paravalvular leak, a normofunctional mechanical mitral valve and an ejection fraction of 55-60%. Post-TAVI electrocardiogram showed atrial fibrillation, along with intermittent major left bundle branch block. **Discussions :** Besides the risk of paravalvular leak and potential conduction disorders which were anticipated in a severely degenerated aortic valve, the presence of a mechanical mitral valve implied other complications, such as the interference of the mitral prosthesis with the new valve, its embolization or the increased hemorrhagic risk. Despite those, TAVI achieved its goal of reducing the gradient and, most importantly, relieving the patient's symptoms and hopefully improving her quality of life. **Conclusions:** Undoubtedly, continuous refinement of TAVI techniques and materials is warranted to further mitigate associated risks. Nevertheless, we believe this case achieves its goal of highlighting the outweighing benefits of TAVI in this patient. Considering the relatively scarce literature regarding TAVI in patients with mitral prostheses, we believe this paper contributes to the growing body of evidence that TAVI is a feasible therapeutical option in patients with mitral prostheses.

Keywords: TAVI, Mitral Prosthesis, Aortic Stenosis, Complications

A CLOSE CALL: CASE REPORT ON SYNCOPE TRIGGERED BY HYPERTROPHIC CARDIOMYOPATHY

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Introduction: Hypertrophic cardiomyopathy(HCM) is an autosomal dominant inherited disease with marked phenotypic variability.Syncope occurs in approximately 15-25% of patients.Such occurrences indicate a high risk of SCD(sudden cardiac death) and require urgent management. **Case Report:** We present the case of a 69-year-old man who was brought to the Emergency Department after a syncopal episode.The patient had a GCS of 15 pts,a left parietal posttraumatic lesion and was complaining of headache and drowsiness.He was recently diagnosed with HCM and he was scheduled for alcohol septal ablation.The initial workup revealed:positive D-Dimer test,hs-cTnI= 56,4 ng/l,CK-MB=2,3 ng/l,Nt-proBNP=434 ng/l and LVH(left ventricle hypertrophy)with strain pattern on the ECG.The initial neurological evaluation objectified bradylalia and bradypsychia.A native cranio-cerebral computed tomography was performed and revealed right hemispherical subdural hematoma(SH),subarachnoidal hemorrhage(SAH) and right hemispherical cerebral edema.The cardiac ultrasound objectified severe left ventricle hypertrophy,especially on the septal region,an LVOT(left ventricular outflow tract) gradient of 90 mmHg,systolic anterior motion of the mitral valve,and moderate mitral regurgitation.The 5-year risk of SCD was assessed via the HCM-Risk SCD score,obtaining a value of 5,66% meaning that an ICD(implantable cardioverter defibrillator) may be considered.The neurosurgical team resolved the SH and SAH,followed by the interventional cardiology reevaluation of the case that determined the optimal therapeutical strategy. **Discussions :** HCM stands as a significant cause for SCD due to patients' tendency to develop re-entrant ventricular arrhythmias.As an aggravating factor,many SCD incidents arise in individuals exhibiting few or no symptoms.However,ICDs offer potent preventative treatment.Identifying patients at high risk is crucial for directing prophylactic measures effectively.Any patient experiencing syncope requires a comprehensive history and physical examination,alongside an ECG,as advised by the ACC/AHA/HRS Guidelines for Syncope Management.All of the initial workup should promptly and efficiently be managed by the Emergency Physician since syncope represents one of Emergency Medicine's clinical challenges.Given the evident risk of SCD,the patient should be closely monitored during his stay in the ED and the need for Advanced Life Support should be considered as a very possible occurrence.Studies show a heightened SCD risk in patients with LVOT gradients ≥30mmHg.Initial SCD risk assessment is mandatory for all patients.For certain obstructive cases,septal reduction therapy can reduce or eliminate syncope episodes. **Conclusions:** SCD is the most dreaded complication of HCM.Syncope occurrence is a danger sign.Managing syncope in HCM demands urgent and coordinated efforts between emergency physicians and cardiologists.This collaborative approach is essential for rapid assessment and the timely application of therapeutic strategies.The final recommendation for an ICD requires thorough risk stratification and complex clinical judgment.

Keywords: hypertrophic cardiomyopathy, syncope, sudden cardiac death

ANTIPARKINSONIAN MEDICATION-INDUCED DELIRIUM - A CASE REPORT

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Introduction: Dementia, pathology impairing the cognitive abilities including event-recalling and decision making, can have multiple ethyologies, including vascular, parkinsonian and involutive causes, a combination of them being possible and often observed in elderly patients, while also being associated with a poor overall prognosis. **Case Report:** A 80-years-old female patient, diagnosed 3 years prior with Parkinson's Disease (PD), but without following treatment, presents to the Psychiatry Department accusing aggravated symptoms of PD, symptoms of depression, asthenia, fatigue and avolition. Anamnesis reveals a situational depressive episode, without autolytic ideation and a neurocognitive disorder alongside inadequate social support. The patient is referred to the Neurology Department, for the initiation of antiparkinsonian therapy (Levodopa/Carbidopa and Pramipexolum), promising to return to the Psychiatry Department after 3 days, in order to initiate the anti-dementia drugs. However, after the initiation of the antiparkinsonian therapy, the patient develops perceptual distrubances, with vivid

hallucinations (the patient relates seeing and talking with her late husband and deceased parents and sister), she recognizes their pathological character, deciding to stop the medication and presents to the Psychiatry Department. While admitted in the hospital, at the Neurology Department's recommandations, antiparkinsonian therapy is initiated only with Levodopa/Carbidopa, the patient presenting an episode of delirium associated with hetero-aggression both verbally and physically towards the medical staff. The anti-parkinsonian treatment was switched to Levodopa/Benserazidum and anti-psychotic medication (Quetiapinum) is also initiated, and possible organic causes for this pathology are investigated (non-contrast cranial CT shows no hetero-dense lesions, cortical atrophy, no signs of diffuse or localized oedema, hypodense lesions in the white matter, classic presentation of degenerative-demielization, without signs of recent Cerebrovascular accident; all of these results are suggestive for Leukoaraiosis and Moderate Cerebral Atrophy, demonstrating the multiple ethiologies involved, including vascular, parkinsonian and involutive causes). Currently, the patient's symptoms are ameliorated, she is cooperative, and seemingly optimistic towards the future. **Discussions :** In the case of an inadequate social suport, the patient's awareness plays a major role in the diagnosis and treatment of psychiatric disorders, especially when the pathological and delusional characteristics of the symptoms can be self-identified, in which case the patient will most likely address the medical professionals in a shorter period of time, receiving proper care sooner. **Conclusions:** The particularity of this case is the delirium caused by treatment with Levodopa/Carbidopa, that remitted once switched to Levodopa/Benserazidum, and the recognition of the hallucinations by the patient, characteristics rarely seen in psychiatric disorders.

Keywords: dementia,, Parkinson's Disease,, hallucinations,, delirium

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PERICARDITIS EPISTENOCARDICA, A PATHOLOGY OF THE PAST?

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Introduction: Early postinfarction pericarditis or Pericarditis epistenocardica refers to the acute inflammation of the pericardium with fibrinous exudate production, due to the damage of the endothelial permeability barrier, capillary microthrombosis and occlusive swelling, all of which are pathophysiological paths that can occur during Acute Myocardial Infarction (AMI). **Case Report:** A 70-year-old female patient, with multiple cardiovascular risk factors and a history of ischaemic stroke, presented to the Emergency Department with constrictive retrosternal pain, radiating to the interscapular region, lasting for approximately 4 hours, associated with dyspnea, nausea and vomiting. The EKG revealed ST-segment elevation in V2-V6, DII and aVL, with negative T waves in V2-V6, DI, aVL , supporting the diagnosis of anterolateral AMI. Additionally, the cardiac cytolysis enzymes were elevated, and the echocardiography confirmed a decreased ejection fraction (<30%), severe hypokinesia of the inferior and posterior wall, and akinesia of the interventricular wall, mild mitral and tricuspid regurgitation. Emergency coronarography was performed, placing a stent in the anterior descendent artery, without any periprocedural complications. After 8 days of favorable evolution, with decreasing cardiac cytolysis enzymes and stationary EKG, the patient complains of chest pain. Serum levels revealed an inflammatory syndrome, with neutrophilic leukocytosis, treatment with Meropenem being initiated. The echocardiography reveals moderate tricuspid regurgitation, free pericardial space of 13 mm anterior to the right ventricle and 20 mm laterally to the left ventricle, and a hyperechogenic mass near the pericardium, possibly a thrombus. The suspicion for ventricular wall rupture is raised, anticoagulant medication is stopped and contrast enhanced AngioCT is ordered, no active hemorrhage is evidentiated but the pericardial fluid density is suggestive for a fibrinous exudate. Given these results, treatment with Colchicine is initiated, the anticoagulant medication is continued and the patient is monitored echocardiographycally, the next days showing clinical improvement, with a reduction of the tricuspid regurgitation and the free pericardial space. **Discussions :** Pericardial involvement in the context of AMI has significantly decreased since the development of thrombolysis and percutaneous coronary interventions, some reporting an incidence of under 5%. However, if missed it can drastically reduce the chance of survival for the affected patient. **Conclusions:** Even though this pathology is not the first that comes to mind in the more recent years regarding post-AMI complications, it shouldn't slip into the "forgotten and non-existent" part of the clinician's mind, for it is a prompt diagnosis and a correct treatment that will result in the best possible outcome for the patient.

Keywords: Pericarditis epistenocardica,, Acute Myocardial Infarction,, free pericardial space,, post-AMI complications

MELANOMA IN ADVANCE STAGES - THE UNREVEALED COVID-19 PANDEMIC CONSEQUENCES

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Introduction: Melanoma is the most frequent type of skin malignancy from melanocytic skin tumors category. Even though the prognostic different from stage to stage, after the COVID-19 pandemic, more advanced stages were being observed. **Case Report:** We present the case of 66-years old male patient who underwent a surgical excision of a tumoral proliferation on the posterior torso. The excision took place in the Plastic Surgery Department of the Mures Clinical County Hospital. The specimen was sent to the Clinical Pathology Department for the histopathological diagnostic. Grossing revealed an irregular tumor of 38x25x12 mm. Microscopically, a tumoral cells proliferation was observed, composed of epithelioid cells with eosinophilic cytoplasm and large round nuclei. The tumoral proliferation had a thickness of 13mm and it was penetrating the papillary dermis. A total of 37 mitoses/10HPF were observed, counted with a 40x objective. Lymphovascular and neural invasion was absent. No pagetoid migration was observed. Immunohistochemically, the tumoral cells were positive for SOX10 antibodies, Melan A antibodies, HMB45 antibodies and S100 antibodies, with a Ki67 proliferation index of about 70%. According to the morphological characteristics and the immunohistochemical profile the histopathological diagnostic was nodular melanoma, pT4bNxMx stage with a 13 mm Breslow index and CLARK Level III. The tumor was safely excised within the surgical limits. **Discussions :** COVID-19 pandemic has influenced the diagnostic of skin malignancies in terms of access to health services. After COVID-19 pandemic, more advance stages have been seen in melanoma. By this, the prognostic for those patients with melanoma in advance stages is relatively bad. Our patient has been diagnosed in an advance stage (pT4b), with no lymphovascular or neural invasion. Even though the patient underwent surgery, for establishing the adequate and personalized treatment, the test for BRAF and KRAS mutations is necessary. **Conclusions:** The advanced stages of melanoma influence directly the prognosis and the adequate treatment for the patient. Advance stages like in our patient usually have a bad prognosis with a low survival rate and a high risk of metastasis.

Keywords: Covid-19, Melanoma, Immunohistochemically, Malignancy

GASTRIC GLOMUS TUMOR: A RARE CHALLENGING DIAGNOSIS

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Introduction: Glomus tumor is of mesenchymal origin, a rare entity that is generally benign and accounts for less than 1% of soft tissue gastrointestinal tumors. It is usually observed at the extremities of the fingers and rarely involves the visceral organs, but is mostly encountered in the stomach. **Case Report:** We hereby present a 52-year-old female patient diagnosed with a submucosal tumor of the lesser gastric curvature which underwent biopsy, but the tumoral mass was not reached and reactive gastropathy was diagnosed. A few weeks later she presented to the emergency department with hematemesis, melena, and anemia, and two more gastroscopies were performed describing a mucosal hemorrhagic ulceration of the above tumoral mucosa therefore distal gastrectomy was recommended. Gross evaluation revealed a protrusive submucosal nodular brownish mass of 30 mm higher dimension predominantly located in the muscularis propria which was microscopically composed of monomorphic round small cells. The mitotic rate was 2/10mm2, without peritumoral vascular invasion, atypical mitoses, or fusiform cells identified. Immunohistochemical evaluation revealed positivity for Vimentin, SMA, Caldesmon, and Synaptophysin and negativity for KIT, DOG-1, Pan-Cytokeratin, S-100, and CD45 which highlighted the glomus tumor diagnosis. **Discussions :** There are only two reported metastatic cases of visceral origins presenting over 5cm diameter, with foci of fusiform cells, thus enforcing the fact that an uncertain malignant potential should be taken into account. Greater dimension of over 2 cm for soft tissue location is considered an adverse factor, therefore it sustains our classification as uncertain malignant potential. **Conclusions:** Glomus gastric tumors can be easily clinically misdiagnosed. Immunohistochemical and histological evaluations should be always performed. Evaluation of criteria for soft tissue location should be performed considering the undefined

criteria and scarce literature data available for visceral location.

Keywords: Immunohistochemistry, Glomus tumor, Stomach, Malignancy

MRI IMAGING IN BONE NECROSIS DIAGNOSIS: UNVEILING HIDDEN PATHOLOGIES

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Introduction: Avascular necrosis (AVN) is an ischemic lesion of epiphyseal bone that is responsible for joint pain, poor quality of life and frequently affects young patients. It can be unifocal or multifocal, which could indicate a possible systemic origin. AVN is a reversible condition in the early stages, and many risk factors, including corticosteroid treatment, hypercholesterolemia, and sickle cell disease, should be considered. **Case Report:** We report the case of a 53-year-old male patient who presented with a severe chest injury and alveolar hemorrhage after a fall. He required corticotherapy due to the severity of the damage. After the treatment, the patient was discharged. He returned with complaints of increasing pain in his upper and lower limbs, approximately six months after discharge, prompting the recommendation for an MRI examination. The MRI of the pelvis bone revealed an ischemic lesion of the femoral head with injuries in the super-internal and super-external quadrants, extended over an ellipsoid surface of approximately 4.6 centimeters, with edema, intracapsular synovitic reaction, and subchondral bone fracture. On T2- and T1-weighted sequences, the afflicted bone marrow was observed to be hypointense, indicating significant and irreversible damage. A similar lesion was also noticed on the head of the right femur, with damage to an ellipsoid surface of approximately 4.2 centimeters. Due to the severe pain, a shoulder MRI was also performed and revealed an ischemic lesion of the right humeral head with damage to the super-external and super-internal quadrants, extended over an ellipsoidal surface of approximately 4.2 centimeters, with an associated significant bone edema. The hypointense appearance on the T2- and T1-weighted sequences indicated permanent impairment of the bone marrow. Furthermore, extensive cartilage degeneration that completely destroyed the afflicted joints was visible only on MRI. **Discussions :** It is important to calculate the risk-benefit ratio before choosing corticosteroids. In the medium to long term, corticosteroid medication can have potentially substantial side effects, despite its effectiveness in treating a wide range of conditions. Even though the patient in this instance was rather young, corticotherapy had a significant negative systemic effect, and it has been established that a prosthesis is the most effective course of treatment. MRI is the most reliable method for assessing the vitality of the bone marrow. **Conclusions:** In order to prevent irreversible bone marrow damage and to identify pathological changes in their early stages, patients who have had extended or high dosages of corticosteroid medication are advised to undergo MRI periodically.

Keywords: magnetic resonance imaging, corticosteroids, ischemic lesion

MAPPING NEURAL PATHWAYS IN GLIOBLASTOMA: ANALYSIS OF THE BENEFITS OF MRI TRACTOGRAPHY IN GUIDING SURGICAL INTERVENTIONS AND ADJUVANT THERAPIES

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Introduction: Adult glioblastoma is the most prevalent and malignant primary brain tumor. The aggressive nature of this condition results in an extremely low survival probability upon diagnosis. Patients with glioblastoma who receive treatment oriented around maximal surgical resection see improvements in survival after adjusting for validated prognostic variables.The objective of this report is to emphasize the importance of fiber tractography as an additional diagnostic tool that is also highly beneficial in the surgical treatment of glioblastoma. **Case Report:** We report the case of a 65- year-old male patient who presented with signs of motor deficiency and ataxia. On magnetic resonance imaging (MRI), we observed a mass lesion in the right frontal lobe with a midline shift of 6.5 millimeters to the left, resulting in a perilesional mass effect. Measuring 35 × 44 × 46 millimeters, the tumoral mass was visible hypointense on T2- and T1-weighted sequences with diffusion restriction, peripheric ring-like enhancement and significant digitiform edema. The multidisciplinary team decided that the most effective course of treatment was to surgically remove the tumoral mass. To ensure an extensive excision of the tumor and to acquire a better understanding of its invasion, tractography was suggested as a first treatment step. The tractography

facilitated a safe tumor removal that resulted in minimal postoperative damage and left no apparent tumoral tissue on the MRI. Diffusion tensor imaging (DTI) revealed an absence of signals in the suprapontine and infrapontine segments of the right corticospinal tract. The infiltrative nature of this condition makes complete resection difficult, and the damage to nerve fibers sustained during the process may be the reason for the patient's persistent motor disability following surgery. **Discussions :** A brain tumor is frequently identified several months after the first signs appear, especially in patients with "unclear" motor or cognitive impairments or infrequent headaches.After the MRI revealed the tumor, tractography was crucial to the subsequent treatment plan because it provided an accurate representation of the tumor invasion, increased surgical precision, and improved the prognosis of the patient. **Conclusions:** Diffusion tractography was once thought to be a research tool, but it has since developed into a neurosurgical tool with applications in glioma surgery that have been enhanced by improvements in automated tract identification, edema correction, and crossing fiber visualization.

Keywords: glioblastoma, tractography, magnetic resonance imaging, diffusion tensor imaging

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EXPLORING THE COMPLEXITY: UNRAVELING THE MYSTERIES OF PBC-AIH OVERLAP SYNDROME

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Introduction: Primary biliary cirrhosis (PBC) is a complex autoimmune liver disorder marked by the gradual deterioration of bile ducts within the liver, whereas autoimmune hepatitis (AIH) entails immune-mediated damage to hepatocytes. The medical scenario becomes intricate when both diseases coexist, resulting in a cluster of symptoms that intersect and correlate, suggesting the onset of PBC-AIH overlap syndrome. Emphasizing the vital necessity of continuous, long-term surveillance to assess disease development and consequences is imperative, particularly in patients with co-occurring autoimmune liver disorders. **Case Report:** A 43-year-old female initially presented six years ago with nonspecific symptoms of fatigue and pruritus, accompanied by elevated alkaline phosphatase levels. Since the symptoms led to a suspicion of splenic lymphoma, a splenectomy was performed. During surgery, the presence of cirrhosis was detected. After the procedure, the patient's condition transitory worsened due to further surgical complications. A subsequent inquiry was conducted to ascertain the cause of the cirrhosis. Autoimmune antibody panel was positive for PBC. Intraoperative liver biopsy was not helpful because of advanced hepatic remodeling; it did not suggest autoimmune hepatitis. Ursofalk treatment was initiated. Radiology showed a newly created splenorenal shunt, while gastroscopy showcased esophageal varices. These findings illuminated disease progression. During follow-up, laboratory analysis showed persistently elevated levels of immunoglobulin G (1980 mg/dL), elevated ALT, and ESR. In 2022, autoimmune liver disease autoantibody panel detected the presence of anti-LC1 antibodies, confirming the diagnosis of AIH. All the clues were leading to the possibility of a PBC-AIH overlap syndrome. Specific treatment approaches included the administration of ursodeoxycholic acid and immunosupressive treatment with prednisone and azathyiprin. Follow up showed normalized ALT and ESR. The treatment plan involved a multidisciplinary approach to address both the underlying liver disease and postoperative complications. The resolution of these issues successfully demonstrated the effective teamwork and coordination among hepatologists, surgeons, and support services in enhancing patient care. **Discussions :** The presented case epitomizes the intricate interplay between autoimmune liver diseases and the nuanced challenges encountered in their management. PBC-AIH overlap syndrome represents a complex challenge in diagnosis and treatment, necessitating a holistic approach encompassing both medical and surgical modalities. This disease spectrum is dynamic as thrombocytopenia and hernias evolve. **Conclusions:** Managing PBC-AIH overlap syndrome necessitates personalized, multidisciplinary care to optimize patient outcomes. Patients in this category need close monitoring, fast medical assistance when needed, and a deep understanding of how the disease progresses in order to be treated adequately.

Keywords: Primary biliary cirrhosis, Autoimmune hepatitis, Overlap syndrome, Disease progression

A SECOND CHANCE AT EVERY BREATH: STABILIZING ADVANCED LUNG-HEART DISEASE IN THE RIGHT HEART FAILURE CRISIS

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Introduction: Extended pulmonary impairment stemming from tuberculosis infection may precipitate chronic respiratory insufficiency, pulmonary hypertension, and chronic pulmonary heart disease. We offer an example of the long-term, interdisciplinary care given to these issues. **Case Report:** A 32-year-old female smoker (known for having TB three years ago and having completed treatment) presented with symptoms of pneumonia, including a productive cough lasting five days, fever, headache, myalgia, and a loss of ten pounds of body weight. She had been receiving oxygen therapy for a long time due to bilateral post-TB lung fibrosis, which had nearly completely destroyed her left lung. Upon examination, she showed signs of right heart strain from elevated pulmonary pressures, including tachypnea, clubbing, and facial edema.Her history of end-stage lung illness was consistent with the significant scarring in both lung fields shown on the chest x-ray, which also showed volume loss in the left lung and a sizable 11-cm bulla in the right upper lobe. Echocardiography indicated a 40% reduced ejection fraction, inflated right ventricle and atria, and flattened interventricular septum during diastole. All of them indicate septal dysfunction. Decompensation of the right heart was interpreted against the background of sequel lung changes. The cardiological evaluation with the execution of Ecocord highlighted severe dilation of the right cavities, moderate tricuspidian insufficiency, and a high probability of pulmonary hypertension with a VD-AD gradient of 50 mmHg.Hospital Course: After being hospitalized in the critical care unit for monitoring, she received intravenous cefepime (1g every 8 hours), levofloxacine, and diuretics (furosemide and spironolactone). During her hospital stay, the progress from the heart point of view was favorable, achieving a diuretic liquid depletion of 6450 ml (without physiological losses). Her cough, dyspnea, edema, and inflammation subsided. She was stable enough to leave as an outpatient with long-term oxygen, oral diuretics, pulmonology, and cardiology checkups. **Discussions :** This case illustrates the development and management of severe pulmonary hypertension and right heart failure caused by extensive post-TB lung destruction over many years. Her acute pneumonia likely precipitated acute decompensation of her chronically strained right ventricle due to elevated pulmonary pressures that overwhelmed her limited cardiac reserve. **Conclusions:** Through a coordinated multidisciplinary approach utilizing antibiotics, oxygen therapy on a mask, intravenous diuretics, and optimization of pulmonary therapy, even her advanced lung disease and pulmonary hypertension were stabilized after an acute exacerbation, improving her long-term clinical status and quality of life with rehabilitation. These complicated patients require careful, long-term management.

Keywords: Pulmonary impairment, Tuberculosis sequelae, Multidisciplinary care, Right heart failure crisis

INSIGHT INTO THE MANAGEMENT OF IDIOPATHIC ADVANCED DILATED CARDIOMYOPATHY-A CASE REPORT

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Introduction: Dilated cardiomyopathy (DCM) is a progressive heart condition characterized by the enlargement and systolic dysfunction of the left ventricle. This pathology often leads to congestive heart failure (HF) and is associated with higher mortality and more frequent hospitalizations. Although DCM may have several known causes, most cases are considered idiopathic. **Case Report:** We present the case of a 44-year-old patient with no relevant family history, who complained of shortness of breath and fatigue at moderate exertion. The patient was diagnosed with left bundle branch block (LBBB) at the age of 20, and has been on medical treatment for heart failure with reduced ejection fraction since the age of 36. Cardiac magnetic resonance imaging showed severe dilatation of the left ventricle, severely impaired left ventricle ejection fraction (LVEF) and features of non-ischemic DCM. Following an episode of food poisoning, the patient experienced a non-sustained ventricular tachycardia in November 2023. After the acute event, the patient was referred for assessment in the 1st Cardiology Clinic of the Emergency Institute for Cardiovascular Diseases and Transplantation. The 12-lead electrocardiogram (ECG) revealed an LBBB with a QRS width of 160 msec. On echocardiography, the left ventricle was severely enlarged, with an LVEF of 14%. Significant inter- and intraventricular dyssynchrony was documented. Accordingly, a cardiac resynchronization therapy defibrillator (CRT-D) was implanted. After the procedure, the clinical condition of the

patient improved, and dyssynchrony was reduced. However, evidence of dyssynchrony still persisted due to the severe enlargement of the left ventricle. **Discussions :** According to the 2021 European Society of Cardiology Guidelines for the diagnosis and treatment of acute and chronic heart failure, CRT is recommended (class I indication) in symptomatic HFrEF patients with LVEF ≤35%, exhibiting a QRS duration ≥150 msec and LBBB, who have been on maximum tolerated optimal medical therapy for at least three months. In patients who are adequately and promptly treated, morbidity and mortality are significantly reduced, while the quality of life is improved. **Conclusions:** In conclusion, this case highlights the complexity of managing advanced dilated cardiomyopathy, particularly in the context of additional cardiac abnormalities such as complete LBBB. However, the severely enlarged left ventricle, the very poor ejection fraction, and the late implantation of CRT-D after disease onset may negatively influence long-term prognosis. Further evaluation at the 6-moths follow-up will provide valuable insights into the patient's response to therapy and guide future management decisions.

Keywords: Dilated cardiomyopathy, LBBB, CRT-D

PAPILLARY THYROID CARCINOMA WITH TRACHEAL INVASION

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Introduction: Thyroid carcinoma originates from the malignant transformation of follicular cells within the thyroid gland. These transformed cells exhibit uncontrolled proliferation and possess the capacity for distant dissemination, a phenomenon known as metastasis. **Case Report:** A 62-year-old male patient, former smoker (1 pack/day for 25 years) and with professional exposure to phosphate vapours for 3 years (The genesis of numerous human malignancies is linked to dysregulated phosphate homeostasis), presents with physical asthenia, fatigue, weight loss (approximately 5 kg in 2 months), posterior chest pain, haemoptysis (approximately 1 month). Heredocollateral antecedents disclose a history of lung cancer which affected his father. The results of the complete blood count are within normal limits, excepting: average erythrocyte volume and width of erythrocyte distribution; which can indicate a macrocytic condition or a variation in the size of red blood cells (these values can be present in some types of cancer, but they can also appear in other benign conditions). The patient underwent a spirometry test, which resulted in: FVC: 90%, FEV1: 92%, iTiff: 78.49%, FEF50: 77%, - normal volumes and flows. The bronchoscopy exposes: a vegetative proliferative process, immediately after the vocal cords, that obstructs approximately 80% of the tracheal lumen. A biopsy of that friable formation was made. The bronchial tree was without obvious proliferative processes, with bloody secretions covering the bronchial wall. Bronchial aspirate was taken for cytological examination. The histology showed that the morphological aspect and the immunohistochemical profile found could be suggestive of a tumoral invasion of the trachea through contiguity, possibly, from the thyroid level. Given the results, the patient is referred to an endocrinological consultation and thoracic surgery. **Discussions :** Thyroid cancer is a rare form of tumor, accounting for approximately 1% of all cancers. It occurs three times more often in women than in men and is most common in the third decade of life or after 60 years. Is usually considered a treatable illness due to the limited local invasion. Although tracheal invasion is rare (approximately 5%-34% of PTC cases), when it occurs, airway haemorrhage and blockage may result in mortality. **Conclusions:** All things considered, individuals with papillary thyroid carcinoma with tracheal invasion typically have excellent surgical survival rates. Early diagnosis of this condition is crucial, taking into account that the degree of invasion will determine the prognosis and further surgical management.

Keywords: papillary thyroid carcinoma, tracheal invasion, thyroid tumor

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PAPILLARY RENAL CELL CARCINOMA WITH SARCOMATOID DIFFERENTIATION- A CASE STUDY

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Introduction: Renal cell carcinoma (RCC) with sarcomatoid differentiation represents one of the most aggressive clinical and pathological forms of RCC. Due to its considerable resistance to recommended systemic targeted therapy, it has a significant risk for primary metastasis and few therapeutic choices. **Case Report:** A series of fragments of tumoral renal tissue were extracted and processed from a 65-year-old male patient. The Hematoxilin and Eosin stained slide showed tumor proliferation, fusiform cells surrounded by eosinophilic cytoplasm, with big

pleomorphic nucleus (sarcomatoid aspect) and focal tubular structures. Within these structures numerous macrophages with foamy cytoplasm were observed . The histopatological changes found in the tissue structure confirmed the diagnosis of Renal cell carcinoma (RCC) with sarcomatoid differentiation grade WHO/ISUP4, with the TNM staging T3cNxM1 . The immunohistochemical profile supported the diagnosis showing CD10 and EMA being focal positive at the level of the fragment/component with tubular architecture and negative in the sarcomatoid component. VIMENTIN and AMACR were intense positive inside the component with tubular architecture and diffuse inside the sarcomatoid component. **Discussions :** Sarcomatoid differentiation in a histologically subtyped renal cell carcinoma it is extremely rare (3% in papillary renal carcinoma). In renal cell carcinoma (RCC), sarcomatoid differentiation is linked to lower survival, more aggressive tumor evolution, and greater rates of tumor recurrence. The clinical diagnosis of right renal tumor staged T3cNxM1 confirms its aggressive character by showing the metastatic criteria of the malignancy. Similar to our case, the majority of patients arrive with systemic symptoms and advanced disease, the advised treatment being total nephrectomy. For sRCCs, conventional immunomodulator therapies or conventional targeted therapy regimens have demonstrated minimal efficacy, with a median survival rate of 6-13 months. When compared to other RCCs, treatment outcomes for sarcomatoid tumors have stayed largely similar; nevertheless, more research into the tumor-immune cell microenvironment may provide new therapeutic opportunities. **Conclusions:** Sarcomatoid differentiation is a rare characteristic that can occur in various histological subtypes of renal cell carcinomas (RCCs) Patients with sRCC have a dramatically bad prognosis, as demonstrated by high recurrence and death rates, highlighting the need for finding new or more effective systemic treatments.

Keywords: renal cell carcinoma, sarcomatoid differentiation, papillary carcinoma, malignancy

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SHORTNESS OF BREATH AND CHILAIDITI SIGN IN A RADIOTREATED LARYNGEAL CANCER. WHAT'S THE DIAGNOSIS?

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Introduction: Left diaphragm elevation and Chilaiditi sign are radiological findings, associated with the upward displacement of the left hemidiaphragm and the malposition of the bowel that can affect the respiratory function, if the interposed colon exerts pressure on the diaphragm. Both serve as diagnosis indicators pointing towards the possibility of left diaphragmatic paralysis, leading to respiratory compromise and complications. **Case Report:** The 70-year-old patient had a laryngeal cancer in 2021, that was locally radiotreated and the doctors performed a tracheostomy as well. This year the patient was subjected to some routine medical tests, such as thoracic radiography and blood tests. After these investigations, the radiology report showed left hemidiaphgram elevation due to moderate/severe aerocoly with left basal pulmonary consolidation, likely atelectasis. Also, it didn't described any pleural fluid being present and his heart was enlarged. After the blood tests his mean erythrocyte hemoglobin levels were low, monocytes and eosinophils were slightly higher. The total creatine phosphokinase was over the normal limit as well. Considering the results of these investigations, the final diagnosis appeared to be either pneumonia or diaphragmatic rupture. **Discussions :** The particularity of this case revolves around the surgical interventions and local radiotherapy he underwent in his battle with laryngeal cancer. Although chances are low, performing a tracheotomy can lead to the excision of left phrenic nerve and radiotherapy can cause inflammation and fibrosis in the tissues surrounding the tumor, which may lead to compression or injury of it, causing the paralysis of the left side of diaphragm. After the X-Ray examination, the presence of Chilaiditi sign was identified, potentially caused by the left diaphragmatic paralysis. Pain distinguishes Chilaiditi syndrome from asymptomatic colonic interposition, which is termed as Chilaiditi sign. Although this sign is primarily used for the differential diagnosis between pneumoperitoneum and pseudopneumoperitoneum associated with chronic constipation, colonic aerocoly and intestinal malposition, it can also be beneficial in the pulmonary evaluation of patients presenting with respiratory symptoms. The decrease in mean erythrocyte hemoglobin levels can be attributed to compromised lung function and impaired gas exchange. Diaphragmatic paralysis can cause atrophy of the affected side, as a result, there may be ongoing damage of muscle fibers, leading to the release of creatine phosphokinase into the bloodstream. **Conclusions:** The conjunction between radiographic signs of diaphragm elevation and potential iatrogenic injuries of the phrenic nerve can support the diagnosis of diaphragmatic paralysis, underscoring the importance of considering these and the past medical history.

Keywords: Laryngeal cancer, Diaphragm paralysis, Chilaiditi sign

UNRAVELING THE COMPLEXITY: DIFFICULTIES IN THE MANAGEMENT OF A POSSIBLE TUMORAL CO-SECRETION

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Introduction: Paraneoplastic syndromes are disorders characterized by abnormal production and release of certain proteins secondary to malignancies, causing clinical and paraclinical alterations. Ectopic production of adrenocorticotropic hormone (ACTH) leads to the development of Cushing's syndrome (CS), while ectopic secretion of vasopressin (ADH) causes a syndrome of inappropriate antidiuretic hormone secretion. **Case Report:** We present the case of an 85-year-old woman with a history of heart failure and hypertension who presented to the emergency department for severe abdominal pain. A CT scan was performed, describing a voluminous tumoral mass located in the region of the left adrenal gland measuring 96/52/56 mm, with heterogenous appearance, a smaller hypodense nodule in the right adrenal gland and a heterogeneous pancreatic nodular lesion at the level of the tail measuring 27/23 mm. No suspect lesions of the head or thorax were found. Dynamic imaging revealed increasing size of the adrenal masses, with infitration of the surrounding organs and vascular structures. During her endocrinological evaluation, laboratory tests showed hypercalcemia with low PTH, most likely in the neoplastic context. She also presented with low sodium and low potassium levels. Screening tests for CS were conducted, showing altered biorhythm of cortisol secretion, raised salivary cortisol at midnight, unsuppressed cortisol secretion after 1 mg of dexamethasone overnight and a high ACTH level of 153 pg/mL, establishing the ACTH-dependent CS diagnosis. Additional laboratory tests and investigations would have been necessary, but due to the worsening health condition of the patient, she was discharged at the request of her family members, with a preliminary final diagnosis. The decision regarding the therapeutic management of this case will be made in collaboration with the oncology department. **Discussions :** Based on the available data, we interpreted the electrolyte imbalance as hypokalemia in the context of the ACTH-dependent CS most likely of ectopic origin, with the concurrent hyponatremia explained by a possible paraneoplastic co-secretion of ADH, for which further investigations would have been required. The association of tumoral co-secretion of ACTH and ADH is rarely described in the literature and raises issues in establishing the diagnosis and in the management of the patient. **Conclusions:** Concurrent hypokalemia and hyponatremia in a patient with malignant background poses difficulties in establishing their etiology. Paraneoplastic tumoral co-secretion of ACTH and ADH is very rarely reported.

Keywords: ACTH-dependent Cushing syndrome, vasopressin, hyponatremia, ectopic

DEPRESSION AND ORGANIC DISEASES

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Introduction: Depression is a biochemical disorder with genetic components and characterized by various subtypes, with its primary symptoms being sadness, pessimism, anhedonia, micromanic ideas, fatigue, asthenia accompanied memory impairment, psychomotor slowing, including thinking, speaking and motor activity. **Case Report:** The psychiatric ward received in the emergency room a 68 years old patient, known with cerebral vascular accident with hemiparesis almost completely recovered, type 2 diabetes mellitus requiring insulin and a history of depression for several years and with an outpatient treatment adhered to positively. The psychopathological symptoms of the current episode were dominated by: depressive mood (motivated by the suicide of the daughter-in-law three weeks before) , generalized anxiety, micromanic ideas of self-devaluation, worthlessness, generalized hypoprosexia with hyperprosexia focused on the theme of the daughter-in-law's death, hypomnesia, apathy, asthenia, decrease in motivation and voluntary activity, insomnia, inappetence. In the first day of hospitalization, the patient also displayed the following symptoms: bradyphrenia, short periods of verbal incoherence, mild dyshartria, tangential answering to questions, motor aphasia. Following the neurological consult and the investigations conducted (cranial CT), a spontaneous left cerebral hypodense lesion accompanied by circumferential edema (with a compression effect on the left ventricular temporal horn) was detected in the left temporal and left cerebral regions. **Discussions :** It's interesting to compare the similarities between a major depressive episode, a poststroke condition and the symptomatologiy given by a brain tumor, such as the

psychomotor sluggishness, which is part of anhedonia, part of the vegetative symptoms, impairment of attention control, cognitive flexibility or working memory. Patients with a history of mental disorders are often examined superficially from the point of view of physical health because some symptoms due to organic diseases can be covered or can be confused with the symptoms of mental illness. **Conclusions:** The symptoms of depression can vary considerably in intensity and manifestation, and can include a wide range of physical and cognitive symptoms which can be caused or mimic a variety of other diseases making the diagnosis more difficult because of an availability bias.

Keywords: Depression, Stroke, brain tumor

SUSTAINED MONOMORPHIC VENTRICULAR TACHYCARDIA - THE MOST COMMON ARRHYTHMIC CAUSE OF OUT□OF□HOSPITAL CARDIAC ARREST

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Introduction: Sustained monomorphic ventricular tachycardia (SMVT) usually occurs in the presence of structural heart disease and may lead to syncope, haemodynamic collapse, and, if not immediately treated, sudden death. The diagnosis is based on the electrocardiogram (EKG), where a stable and uniform QRS morphology between consecutive beats will be observed. **Case Report:** A 73-years-old male patient presented to the Emergency Department (later transferred to the Cardiology Department) with constrictive retrosternal pain, marked fatigue of 3-4 weeks after an episode of SMVT, converted to synus rhythm (SR). Patient history reveals multiple cardiovascular risk factors (3rd degree Hypertension, Type 2 Diabetes Mellitus, Dyslipidemia, Chronic Kidney Disease (with chronic hemodialysis and a central venous catheter - CVC), Inferior Myocardial Infarction (MI) (with late revascularization in 2015), chronic right coronary artery occlusion, Paroxysmal Atrial Fibrillation, Peripheral Arterial Disease (stage IIb Fontaine). The patient is currently in "Arrhythmic Storm" (>3 SMVT/24 hours), even on treatment with amiodarone and betablockers , so the next line of treatment - implantable cardioverter-defibrillator (ICD) - is not a viable option yet. Furthermore, the risk of endocarditis would increase considerably with an ICD and a CVC. For this reason, coronarography and cardiac MRI were used in order to first clear up possible trigger factors. Coronarography declared Circumflex Artery with severe restenosis/occlusion, and Right Coronary Artery with chronic occlusion. Cardiac MRI revealed myocardial scarring due to myocardial infarction, which is substrate and severe ischemic occlusions in the coronary arteries, are possible trigger factors for SMVT. **Discussions :** In such cases, radiofrequency ablation of ventricular arrhythmia is the next step in the treatment process, in order to stop the "Arrhythmic Storm". After eliminating the factors causing ventricular arrhythmia, ICD will become a viable, yet risky option due to the likelihood of endocarditis, in reducing sudden cardiac death. **Conclusions:** This case wanted to highlight the importance of correct diagnosis of SMVT in reducing mortality for patients suffering from structural heart disease, especially coronary artery disease with prior MI, who present with a wide QRS complex tachycardia. Current and prior EKGs should be reviewed in order to properly take into consideration the possibility of SMVT. Stress testing could also be an important tool for a prompt diagnosis for these patients.

Keywords: Sustained monomorphic ventricular tachycardia,, Cardiovascular risk factors,, Arrhythmic Storm,, Implantable Cradioverter-Defibrillator,

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MALIGNANT HYPERCALCEMIA– A RARE MANIFESTATION OF HODGKIN LYMPHOMA IN AN ELDERLY PATIENT

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Introduction: Hypercalcemia, an elevated level of calcium in the blood, is a common medical condition that can arise from various underlying causes. While often associated with hyperparathyroidism (PHPT) or malignancies such as multiple myeloma or certain metastatic cancers, its occurrence in Hodgkin lymphoma is relatively rare. The exact mechanisms underlying hypercalcemia in Hodgkin lymphoma remain incompletely understood, it is believed to involve factors produced by tumor cells that promote bone resorption or calcium release from the bones. This paper's main objective is to emphasize a rare mechanism that causes hypercalcemia in Hodgkin lymphoma patients. **Case Report:** We present the case of a 78-year-old female patient with valvular heart disease and

arrhythmia admitted to Akdeniz University Hospital, Internal Medicine outpatient clinic in September 2023 due to loss of appetite, fatigue, and loss of weight of approximately 30 kg in the last 6 months. Laboratory tests revealed low hemoglobin (6,6 g/dL), elevated corrected serum calcium levels (14 mg/dL), and also as a result low PTH (10pg/mL5) levels. Because of the frequent association between hypercalcemia and hematological malignancies, the patient underwent endoscopy, colonoscopy, full-body CT scan, mammography, and PET-CT imaging. Diagnostic imaging showed splenic and bone involvement. The patient received steroids and intravenous hydration to correct the hypercalcemia while finding the underlying cause of it. A tru-cut biopsy was performed from a lymph node in the left inguinal area that was visible on the PET-CT scan; the biopsy's findings were compatible with a CD30, CD15, MUM-1 positive classical Hodgkin lymphoma. **Discussions :** The elderly patient was taken under hematology follow-up for advanced stage cHL, and treatment with Brentuximab-Dacarbazine. After 4 cycles of chemotherapy full remission was observed with PET- CT and calcium levels got back to normal. The patient will receive a total of 12 cycles. **Conclusions:** This case highlights the importance of thorough evaluation and appropriate management when hypercalcemia is detected in patients with Hodgkin lymphoma, including both the treatment of the lymphoma itself and addressing the elevated calcium levels.

Keywords: hypercalcemia, brentuximab, Hodgkin lymphoma, dacarbazine

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EXTENDED-SPECTRUM BETA-LACTAMASE PRODUCING KLEBSIELLA PNEUMONIA AND ACINETOBACTER BAUMANNII MENINGITIS IN A MAN WITH VENTRICULOPERITONEAL SHUNT DYSFUNCTION

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Introduction: Meningitis is a dangerous medical disorder caused by inflammation of the meninges which are the protective membranes that cover the brain and the spinal cord. Bacterial meningitis, specifically, is often severe and can lead to significant complications if not promptly treated. Several bacteria are known to cause bacterial meningitis, with some of the most common pathogens being Neisseria meningitidis, also known as meningococcus, Streptococcus pneumonia, and Haemophilus influenzae type b. Acinetobacter baumannii and organisms producing extended-spectrum beta-lactamases (ESBL) are responsible for a wide range of diseases, including pneumonia, cholangitis, urinary tract infections, intra-abdominal abscesses, and in rare instances meningitis. This paper's main objective is to illustrate a complicated case of meningitis caused by unusual agents and the challenges associated with high resistance to treatment. **Case Report:** We present the case of a 65-year-old male patient with ventriculoperitoneal shunt (VPS) placement for normal pressure hydrocephalus (NPH) ten years ago, who presented to the Emergency room in February 2024 with nausea, vomiting, and ataxia. He was hospitalized in Akdeniz University Hospital, Neurosurgery Department for VPS revision. A week later pneumocephalus was detected on a CT scan and an external ventricular drainage (EVD) was placed. After the patient`s general condition got worse, the Glasgow Coma Score decreased from 15 to 5, he was taken to Reanimation Intensive Care Unit and intubated. Meningeal irritation tests were positive and the laboratory tests revealed Leukocytosis (26500/ mm3) and increased CRP (89.6/mm3). Blood culture revealed extended-spectrum beta-lactamase Klebsiella pneumoniae which was sensitive to Meropenem. **Discussions :** After 3 days of Meropenem 3 gr/day, cerebrospinal fluid was taken from EVD and revealed Acinetobacter baumannii, a gram-negative bacterium that typically causes infections in hospitalized patients, particularly those with compromised immune systems or prolonged stays in intensive care units. Treatment with Colistin started 3x120mg/day. The patient`s condition is improving under ICU, and repeated laboratory tests showed decreased leukocytes(16550/ mm3) and CRP (59/mm3). **Conclusions:** Meningitis caused by Acinetobacter baumannii or ESBL-producing organisms presents a significant challenge in terms of treatment due to their resistance to many commonly used antibiotics. Management typically involves the use of alternative antibiotics, often in combination therapy, guided by susceptibility testing.

Keywords: extended-spectrum beta-lactamases, ventriculoperitoneal shunt, normal pressure hydrocephalus, meropenem

UNRAVELING THE ENIGMA OF CUTANEOUS MALIGNANCIES: THE CORRELATION BETWEEN SQUAMOUS CELL CARCINOMA AND BASAL CELL CARCINOMA

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Introduction: Squamous cell carcinoma (SCC) is a malignant tumor affecting epidermal keratinocytes. It mimics the cytology of squamous cells in the spinous layer of the epidermis. Basal cell carcinoma (BCC) is a malignancy originating from basal cells of the interfollicular epidermis and/or hair follicle. Basosquamous carcinoma is an aggressive variant of basal cell carcinoma, exhibiting characteristics of both BCC and squamous cell carcinoma. **Case Report:** A 51-year-old patient presented with multiple ulcerations and cutaneous formations. Two of them were excised, from the right ear and the mid third of the left arm's external side. Histopathological examination revealed moderately differentiated squamous carcinoma in the right ear lesion, whereas the lesion from the left arm exhibited a very rare form of carcinoma known as metatypical (basosquamous) carcinoma, predominantly displaying squamous features. Gross examination for specimen 1 comprised skin fragments, ranging from 32x22 mm to 10x5 mm, with increased consistency. Specimen 2 was an elliptical skin flap, 70x25 mm, with a brown nodular tumor on its surface, measuring 23x20x5 mm. Microscopical examination in specimen 1, Hematoxylin-Eosin (H&E) stain, revealed a keratinized stratified squamous epithelium that appeared ulcerated. Subadjacent there was evidence of an infiltrative tumor proliferation characterized by solid plaques and patches composed of polygonal cells. These cells presented eosinophilic cytoplasm, vesicular nuclei with proeminent nucleoli, cytonuclear atypia, and multiple mitotic figures. Specimen 2 showed an ulcerated epidermis which presented beneath a tumor proliferation comprising squamous cell carcinoma and basal cell carcinoma. The tumor displayed an infiltrative growth pattern and was composed of plaques of large cells with eosinophilic cytoplasm, vesicular nuclei, prominent nucleoli. Palisading phenomenom and small cell with hyperchromatic nuclei were identified. **Discussions :** Squamous carcinoma encompasses a wide etiology, in addition to UV radiation. Localization on the ear and a thickness greater than 2 mm represent a high prognostic risk factor. Basosquamous/metatypical basal cell carcinoma predisposes to sun-exposed skin of older, fair-skinned men. It recurs in 4.5% of cases. Although perineural and lymphovascular invasion were not noted, there is a 5% risk of lymph node and lung metastasis, with a survival rate of 6.5 years (according to specialized literature). **Conclusions:** Basal cell carcinoma is the most common form of skin cancer, while squamous cell carcinoma is a more aggressive type. Basosquamous carcinoma, a rare combination of the two, highlights the complexity of skin malignancies.

Keywords: cutaneous malignancies, squamous cell carcinoma, basal cell carcinoma, basosquamous carcinoma

THE DETERMINING FACTORS OF UVEITIS – CASE REPORT

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Introduction: Uveitis is an ocular inflammatory condition affecting the uveal tract, characterized by vision changes and eye pain. One of the main causes is sarcoidosis, and among the risk factors are various infections, including Lyme disease. The objective of the case is to observe how Lyme disease can trigger or worsen uveitis in the context of an autoimmune disease, such as sarcoidosis. **Case Report:** A 43-year-old patient presents for a dermatological check-up with a non-pruritic violaceous papules on the left knee, without any other complaints. Following a biopsy, histopathologic examination revealed a granulomatous infiltrate, leading to the diagnosis of cutaneous sarcoidosis. After a thoracic radiographic examination, pulmonary infiltrates specific to sarcoidosis were identified. Despite the results, respiratory tests did not show any abnormalities. Therefore, in the absence of other symptoms, active monitoring of the disease without systemic treatment was decided. Three years later, the patient returns with blurred vision, intraocular foreign body sensation. An ophthalmologic examination establishes the diagnosis of uveitis. After further investigations, antibodies against Borrelia burgdorferi were tested and found to be positive for both IgG and IgM. **Discussions :** In this patient's case, it is still under investigation whether the cause of uveitis is sarcoidosis or a previous or active Lyme disease. **Conclusions:** It is decided for the patient to follow a symptomatic treatment, and to repete the immunology tests for Borrelia 3 months later in order to establish if it is

an acute or chronic infection.

Keywords: sarcoidosis, uveitis, lyme disease

AUDITORY HALLUCINATIONS INDUCED BY CHRONIC ALCOHOLISM- CASE REPORT

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Introduction: Alcoholic hallucinosis is characterized by a psychotic picture that occurs after excessive alcohol consumption, starting with elementary auditory hallucinations, while maintaining consciousness, with hostile, intensely anxiety-inducing content, and persistent unsystematized ideas of persecution or being followed. **Case Report:** The 58-year-old patient was admitted to the psychiatric clinic by appointment, presenting typical symptoms of a depression and auditive imperative pseudohallucinations. The psychopathological episode is dominated by a depressive mood, anxiety, depressive ideas of incapacity, and self-devaluation which is associated with auditory and imperative pseudohallucinations. Regarding family history, the patient describes a difficult and conflictual relationship with his mother, who is known to have alcohol dependence. The patient reports that alcohol consumption started at the age of 18 and currently he is known to have been abstinent for 8 months, without specific signs or symptoms of withdrawal. The auditory hallucinations are described as multiple voices with negative ideas, sometimes accompanied by self-injurious urges, along with a continuous perceived whistling sound. The described symptoms started insidiously and progressively worsened despite the resumption of medication treatment. **Discussions :** Considering the family model, in which the mother was also an alcoholic, as well as the fact that the father was not present in his life, determined that the patient adopted the same behavior as an adult. He failed to have a family and started drinking alcohol at a very young age. Currently the patient has no social support relationship and no home, the only support being represented by the therapy groups he has been participating in since he has been abstinent. **Conclusions:** Chronic alcoholism complicated by auditory hallucinations and depressive episodes can, in the most severe cases, lead to a decline in personal functioning and the social and professional marginalization of the patient.

Keywords: alcoholism, auditory hallucinations, depressive episodes, psychosis

THE MANAGEMENT OF A PATIENT WITH SEVERE PULMONARY HYPERTENSION: A CASE REPORT

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Introduction: Pulmonary hypertension is a severe complication of pulmonary disease, with rising incidence among patients with COPD. It is characterized by increased pressures in the right half of the heart and associated with a high degree of morbidity and mortality. Recently, it has been claimed that pulmonary hypertension is a major consequence of SARS CoV-2 infection due to progressive destruction of the pulmonary parenchyma. **Case Report:** We discuss the case of a 62-year-old patient, former heavy smoker, with severe SARS-CoV-2 infection in 2021, severe COPD, severe sleep apnea, chronic respiratory insufficiency, cardiac failure, atrial fibrillation and a history of deep vein thrombosis in 2022, who has repeatedly been admitted to the Targu Mures County Hospital's Pneumology and Cardiology Clinics. Despite maximal therapy with bronchodilators, oxygen therapy and CPAP at home, as well as doctors' efforts to improve the patient's quality of life, he continues to take daily rescue medicine and has very limited effort tolerance. During the last cardiology admission, it is discovered that he has severe tricuspid regurgitation, severe pulmonary hypertension of both thrombotic and COPD origin, dilation of both atrial chambers as the cause of the atrial fibrillation, as well as a moderately reduced systolic function with an ejection fraction of 48%. Considering his medical history and recent findings he is directed to a specialized center to see if he could become eligible and qualify for the National Treatment Program for Patients with Pulmonary Arterial Hypertension. **Discussions :** The National Program for the Treatment of Patients with Pulmonary Arterial Hypertension was designed to ensure the integrated management of patients, allowing the improvement of diagnosis. With his inclusion in this program, the patient benefits from counselling and multidisciplinary care, as well as control and access to the most recent treatment and it is expected to slow down the progression of disease, as well as reducing the number of complications. **Conclusions:** The prognosis of patients with pulmonary hypertension is reserved even with adequate treatment. With the development of the National

Treatment Program for patients with Pulmonary Arterial Hypertension, the management of these patients by providing specific treatment, resulted in an increase in life expectancy, quality of life, and the ability to resume some casual activities.

Keywords: COPD, Pulmonary Hypertension, SARS-CoV-2, severe tricuspid insufficiency

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CHALLENGES OF INTESIVE CARE PRACTITIONERS – DANGEROUS ASSOCIATION BETWEEN UNKNOWN SUBSTANCES INTOXICATION, HEPATIC CIRRHOSIS AND SEVERE DILATATIVE CARDIOMYOPATHY

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Introduction: Intensive care specialists navigate a treacherous terrain, where the convergence of multiple pathologies presents formidable challenges. This paper aims to underscore the importance of prompt recognition, comprehensive evaluation, and aggressive management of critically ill patients presenting with complex and multi-system pathology **Case Report:** Our case report presents a 49-year-old patient admitted to the emergency department accusing diffuse abdominal pain refractory to opioid administration. He was transferred to the intensive care unit in a critical state, being hemodynamically unstable, cold, pale , cyanotic teguments and bilateral edema of the lower limbs, . The handover diagnosis comprised of toxic hepatic cirrhosis, severe metabolic acidosis, unknown substance intoxication and dilatative cardiomyopathy with severely depressed ejection fraction (25%). He was orotracheally intubated , double inotrope positive and vasoactive maximal doses of medication (Dobutamine 250mg/50ml, Noradrenaline 16mg/50ml) were administrated and . A central venous catheter and a dialysis catheter were placed in the right jugular vein and femoral vein, the patient undergoing emergency dialysis. **Discussions :** Each of these diagnoses presents significant challenges and complications on its own, and their convergence in this case amplifies the complexity of the clinical scenario. Unknown substance intoxication, with its erratic manifestations aggravates the preexisting hepatic cirrhosis, also representing the main cause of sever metabolic acidosis. Amidst this confluence of ailments, severe dilatative cardiomyopathy emerges as a formidable adversary, its relentless assault on the cardiovascular system exacerbating the precarious state of the patient. The decision to perform emergency dialysis reflects the urgency in addressing the underlying metabolic derangements and renal insufficiency contributing to the patient's clinical deterioration. This intervention aims to mitigate the systemic consequences of severe metabolic acidosis and renal dysfunction, potentially stabilizing the patient's condition and improving overall prognosis. **Conclusions:** For the intensive care specialist, the management of such cases requires a blend of expertise, empathy, and unwavering vigilance. Each decision is fraught with the weight of

Keywords: toxic hepatic cirrhosis, dilatative cardiomyopathy, intensive care

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A RARE ASSOCIATION OF ORGAN IMPLICATION FOR MULTIPLE ENDOCRINE NEOPLASIA TYPE 1

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Introduction: Multiple endocrine neoplasia type 1 (MEN1), an autosomal-dominantly inherited tumor syndrome, is classically defined by tumors arising from the "3 Ps": Parathyroids, Pituitary, and the endocrine Pancreas. The majority (>95%) of MEN1 patients will develop parathyroid tumors, 35% to 75% of patients will develop neuroendocrine tumors of the pancreas, <30% will have pituitary adenomas, and □□□□– will develop other endocrine tumors such as adrenal adenomas and carcinomas. This case study seeks to emphasize the significance of accurately determining the underlying cause of basic signs such as hypoglycemia and conducting an in-depth examination of the patient to detect potential correlations between latent conditions. **Case Report:** This is the case of a 42-year-old female patient who presented at Akdeniz Hospital complaining of fatigue and hyperphagia. The patient's past medical history shows that she had surgical excision of an insulinoma in 2007 and had experienced weakness, fainting, and polyfagia over the previous three years. Blood testing showed low vitamin D levels, high calcium and PTH levels, and low glucose levels linked to high insulin and C-peptide levels. Computer tomography and parathyroid SPECT confirmed the results, which point to endocrine pancreas and

parathyroid dysfunction. The patient was admitted for further investigations, including genetic testing for MEN1 syndrome. **Discussions :** Four smooth-bordered focal lesions were identified on the CT scan of the pancreatic tail section, the largest measuring 29x24 mm in size, compatible with Insulinoma. Additionally seen on the CT scan are bilateral nodular lesions on the adrenal glands, which raise the suspicion of pheochromocytoma. This led to the testing of catecholamine metabolites, which exhibited normal values for normetanephrine (37,1 ug/24 h) and metanephrine (12,7 ug/24 h). The Parathyroid SPECT detected lesions in the inferior commissure of both thyroid lobes, through an increased MIBI uptake in a hypo-isoechoic and heterogeneous area on the ultrasonography scan. A DEXA scan was conducted to assess bone density in the hip and lumbar spine due to the discovery of parathyroid dysfunction; both findings were conclusive for osteoporosis with a T-score of less than -2.5. **Conclusions:** The patient appears to have all the signs and symptoms of an uncommon case of MEN1 syndrome, which includes adrenal adenomas, pancreatic insulinoma, and parathyroid dysfunction. MEN1 is a complex disorder predisposing to more than 20 benign and malignant endocrine and nonendocrine neoplasms, still incompletely understood.

Keywords: Insulinoma, MEN1, Parathyroid dysfunction, Adrenal adenoma

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PARANEOPLASTIC PEMPHIGUS AS THE INITIAL PRESENTATION OF MYELODYSPLASTIC SYNDROME

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Introduction: Myelodysplastic syndromes (MDS) are hematopoietic disorders characterized by ineffective hematopoiesis, resulting in morphologic dysplasia in hemopoietic elements and cytopenia. Although up to 10-30% of MDS patients are reported to be developing autoimmune reactions, paraneoplastic pemphigus (PNP) is a rather uncommon condition. With a poor prognosis overall, patients typically present with painful and widespread mucosal and cutaneous involvement. The focus of this case report is to highlight the importance of using a multidisciplinary approach, involving dermatologists, hematologists/oncologists, and other specialists, to diagnose paraneoplastic symptoms. **Case Report:** This case study features a 69-year-old female patient who was transferred to the Internal Medicine Clinic of Akdeniz University Hospital by ambulance from an external center in September 2023. She presented with widespread hemorrhagic bullos lesions and erosions on the skin surface that were spread out bilaterally over the dorsal portion of the hands and feet. Along with skin lesions, involvement of mucous membrane caused crusty hemorrhagic lesions measuring 2*4 cm on her lower lip. Apart from a rheumatic heart disease the patient had in her childhood, she had no other known illnesses. Following an initial diagnosis of anthrax, the patient was started on broad-spectrum antibiotic therapy, but no progress was observed. When the patient was brought in, the suspicion of a hematological neoplasia was raised, while anthrax was ruled out due to her serology results: Hgb of 8.3 g/dl, WBC of 84,000/mm3, platelet count of 28,000/mm3, NEU of 78,000/mm3, monocyte count of 2670, and CRP of 200. Bone marrow aspiration and biopsy of the skin lesions were performed during hospitalization. **Discussions :** The biopsy from the skin lesions revealed paraneoplastic pemphigus, which was treated with prednisolone after the skin lesions were heavily debrided. The results of the bone marrow biopsy revealed Myelodysplastic Syndrome (Refractory anemia with excess blasts (RAEB)). Decitabine therapy was therefore initiated for the patient, with a total of 6 cycles of Decitabine administered. The skin lesions significantly improved after the second cycle. The patient was discharged and placed under hematology follow-up. **Conclusions:** Overall, while PNP complicating MDS presents unique challenges, early recognition, prompt diagnosis, skillful differential diagnosis and coordinated management are essential for optimizing outcomes and improving the quality of life for affected individuals.

Keywords: Paraneoplastic Pemphigus, Myelodysplastic Syndrome, bullos lesions, Decitabine

CARDIAC RESYNCHRONIZATION THERAPY AS STANDARD OF THERAPY FOR PATIENTS WITH HEART FAILURE, LOW EJECTION FRACTION AND LEFT BUNDLE BRANCH BLOCK: A CASE REPORT

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Introduction: According to European Society of Cardiology Guidelines for the treatment of acute and chronic heart failure, cardiac resynchronization therapy (CRT) is a class I recommendation for patients with heart failure, left ventricular ejection fraction (LVEF) ≤35%, left bundle branch block(LBBB), and a QRS ≥150 msec, who are on maximumum tolerated medical therapy for at least three months. **Case Report:** We present the case of a 47 year-old patient with no relevant familial history, who was admitted to the Emergency Institute for Cardiovascular Diseases and Transplant of Targu Mures for dyspnea, fatigue and palpitations with minor exertion. Clinical examination revealed mild oedema of the lower limbs. The patient had elevated BN P(375,8pg/ml), complete LBBB with a wide QRS complex (200 msec), and a severely dilated left ventricle, with very low LVEF (15%), as assessed by echocardiography. Coronary angiography was performed, yielding normal coronary arteries. Accordingly, the patient was diagnosed with non-ischemic dilated-cardiomyopathy. Chronic treatment included sacubitril/valsartan (49/51 mg), an SGLT2 inhibitor (dapagliflozin 10 mg), a betablocker (bisoprolol 2,5 mg) and an antialdosteronic (spironolactone 25 mg). Medical therapy up-titration was limited by low blood pressure. Taking into account the NYHA class III symptoms, low LVEF and the wide QRS complex (200 msec) with LBBB morphology, a cardiac resynchronization therapy defibrillator (CRT-D) was implanted. **Discussions :** Data from the EuroHeart Failure survey suggest that approximately 0,4X10^(-3) out of one million patients meet the criteria for CRT. This patient exhibited all required features and is likely to benefit form CRT-D. His clinical status improved within days after the implantation of the device, and a mild increase in LVEF was also documented (20% vs. 15% before the procedure), most likely due to a significant reduction in dyssynchrony. Response to CRT will be fully assessed at 6 months after implant. **Conclusions:** The COMPANION study indicated that among patients with non-ischemic cardiomyopathy, CRT-D was associated with a significant reduction in all-cause mortality compared to CRT-P. This conclusion suggests that patients eligible for CRT with non-ischemic cardiomyopathy would benefit more from CRT-D then CRT-P when appropiate.

Keywords: Cardiac resynchronization therapy, heart failure, , left bundle branch block

BIOLOGICAL THERAPY FOR ATOPIC ASTHMA? UNUSUAL TREATMENT FOR A COMMON ILLNESS

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Introduction: Asthma, a prevalent disease, entails persistent inflammation of the respiratory passages, resulting in symptoms such as wheezing, dyspnea, chest tightness, and coughing. In cases of atopic asthma, exposure to various allergens such as pollen, pet dander, and dust can exacerbate these symptoms, potentially leading to a medical emergency known as status asthmaticus. Diagnosis relies on symptomatology, physical assessment, and pulmonary function testing, confirming expiratory airflow obstruction via reduced FEV1/FVC ratio. Treatment typically involves the administration of short-acting beta-agonists and inhaled corticosteroids. **Case Report:** We present the case of a 7-year-old boy who presented to the hospital with a persistent dry cough. At 8 months of age, he was initially diagnosed with atopic asthma characterized by fever, dry cough, and wheezing. Allergen testing revealed milk protein, dust mites, cats, dogs, and mold sensitivities .Upon diagnosis, he was discharged with controller therapy consisting of Montelukast, Fluticasone, and Salbutamol. Despite treatment, he experienced multiple exacerbations over the years, necessitating dose adjustments. His most severe exacerbation occurred in 2020 during a measles infection due to a lack of MMR vaccination, resulting in respiratory insufficiency with an oxygen saturation of 60%. He required intensive care unit admission and systemic corticosteroid therapy. Subsequent spirometry indicated obstructive ventilatory dysfunction with an FEV1/FVC ratio of 58%. In addition, he presented with atopic dermatitis and allergic rhinitis, managed with Desloratadine. Although initially screened for cystic fibrosis, the sweat chloride test results were negative. Given the refractory nature of his asthma, biological

therapy with Dupilumab was initiated for 2 weeks. At the latest follow-up, the patient reported a significant reduction in exacerbations, down from approximately three episodes per week before initiating Dupilumab therapy. **Discussions :** Nowadays, the therapeutic approach for asthma includes corticosteroids and beta-agonists. However, their prolonged usage can entail numerous adverse effects, and as evidenced in this case report, they may prove ineffective for moderate to severe asthma. Dupilumab, a human monoclonal antibody targeting the interleukin-4 (IL-4) receptor alpha, approved on 19th of October 2018, operates by antagonizing the activity of IL-4 and IL-13, therefore attenuating T helper 2 cell (Th2)-mediated inflammation, a pivotal mechanism in moderate-to-severe asthma pathogenesis. **Conclusions:** In summary, this case underscores the management of a juvenile patient with a chronic disease, in which the enduring doctor-patient relationship played a significant role in identifying the appropriate medication to improve his quality of life.

Keywords: atopic asthma, short-acting beta-agonists, inhalator corticosteroids, biological therapy

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TWIN-TO-TWIN TRANSFUSION SYNDROME-ASSOCIATION IN A TRIPLET PREGNANCY RESULTING IN FETAL DEMISE: A CASE REPORT

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Introduction: Twin-to-twin transfusion syndrome (TTTS) occurs in about 10-15% of monochorionic-diamniotic multiple pregnancies, where the fetuses share a single placenta. The syndrome is a result of an unbalanced blood flow between the fetuses due to placental anastomoses. Thus one of the twins becomes the donor and the other one becomes the recipient. TTTS is often associated with twin anemia-polycythemia sequence (TAPS). The treatment of choice is fetoscopic vascular ablation. We report the case of TTTS occuring in a dichorionic-triamniotic triplet pregnancy resulted in one fetal demise due to refusal of treatment at the right time. **Case Report:** A 33-year-old primigravida with a dichorionic-triamniotic pregnancy was presented in the Obstetrics and Gynecology Department of the County Emergency Clinical Hospital of Targu-Mures, Romania. TTTS with TAPS were ultrasonographically detected during the rutine prenatal visits in her 27 gestational week (GA). The patient was counseled regarding the risks and benefits of various available management options. Fetoscopic vascular ablation was refused by the mother. Given the extreme prematurity, a conservative approach was proposed. By the 31st GA the absence of cardiac activity was ultrasonographically detected in one of the three fetuses. Emergency cesarean section was succesfully performed. The stillborn and the shared placenta were sent to Pathology Department. The autopsy revealed a female stillborn presenting with generalized erithematous skin. Multiple autolyzed organs (stomach, pancreas and adrenal glands) were described. The morphometrical report revealed a 230x185x33 mm and 777 g placenta with 3 velamentously inserted umbilical cords measuring 19x14 mm, 140x11 mm and 76x15 mm. Microscopically, distal villous hipoplasia of the placental parenchyma corresponding to the stillborn was observed. No signs of corioamnionitis were histopathologically detected. The post-operative evolution of the mother and the 2 newborns was favorable, without any complications. **Discussions :** A multiple pregnancy is usually prone to severe feto-maternal risks. In case of TTTS and TAPS as associations, fetoscopic vascular ablation is the method of choice to a successful term pregnancy. **Conclusions:** In the reported case, where this intervention was refused, the pregnancy ended with the death of one of the fetuses, fortunately without endangering the mother or the other 2 prematurely newborns.

Keywords: twin to twin transfusion syndrome, fetoscopic vascular ablation, pregnancy

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CO-OCCURRENCE OF SCHWANNOMA AND MENINGIOMA: IMPLICATIONS FOR NEUROFIBROMATOSIS TYPE 2 DIAGNOSIS

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Introduction: The coexistence of multiple primary brain tumors with different histological origin is a rare phenomenon, however, it can manifest in various genetic conditions, notably neurofibromatosis (NF). **Case Report:** We present the case of a 37-year-old female patient with a four-year history of intermittent headache, vertigo and right-sided hearing loss. She was referred to our hospital following an episode of sudden loss of consciousness. Neurological examination revealed grade 2 peripheral facial palsy and hypoesthesia in the territory innervated by the ophthalmic branch of the trigeminal nerve. Contrast-enhanced Magnetic Resonance Imaging

(MRI) unveiled two distinct formations: a 56x35mm mass localized to the right cerebellopontine angle with an intracanalicular component, and an additional extra-axial cerebellar tumor measuring 12x13mm adjacent to the right cavernous sinus. Subsequently, retrosigmoid suboccipital craniotomy was performed, leading to complete excision of both lesions. Pathological assessments unveiled two neoplasms of different types: the cerebellopontine mass revealed cellular areas (Antoni A) alternating with hypocellular components (Antoni B) and the presence of Verocay bodies, a typical histopathological presentation of Schwannoma, that was also supported by immunohistochemistry, the cells staining S100 and SOX10 positive. The cerebellar tumor exhibited psammoma bodies among fascicle-forming meningothelial cells, being positive for EMA immunostaining, features indicative of transitional meningioma. Notably, both tumors exhibited a low Ki67 proliferative index. The concomitant occurrence of these distinct benign tumors raised the suspicion of a hereditary predisposition, particularly in the context of neurofibromatosis type 2 (NF2), although no family history has been reported. The patient did not meet the classical diagnostic criteria, therefore genetic testing was performed. No alterations involving copy number variations (deletions and duplications) were observed in the 22q 11-13 region. **Discussions :** NF2, a neurocutaneous syndrome, comprises 3% of neurofibromatosis cases, with an incidence of 1 in 33,000 and an onset typically at 18-24 years. It arises due to deletions or loss of function mutations in the NF2 gene located on chromosome 22, leading to impaired activity of the tumor suppressor protein, Merlin. Half of the cases are caused by a de-novo mutation while the remaining are autosomal-dominant. The co-occurrence of schwannoma and meningioma without confirmed NF2 is rare with less than 20 reported cases known to date. **Conclusions:** Our case underscores the complexity of diagnosis in such instances, especially when NF2 criteria are not met, and genetic testing is inconclusive. This rarity highlights the need for thorough investigation and consideration of sporadic occurrences in similar clinical presentations.

Keywords: Meningioma, Schwannoma, Neurofibromatosis type 2

COLONOSCOPIC MANAGEMENT OF SIGMOIDIAN TUMOR-CASE REPORT

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Introduction: Colorectal cancer stands as the most prevalent malignant tumor worldwide, serving as the principal determinant of mortality. The primary histological type is carcinoma, where the epithelium lining of the gastronintestinal tract undergoes degradtion and experiences unregulated proliferation. Statistically, men exhibit a higher susceptibility to the onset of disease, with genetic factors and age also serving as contributory factors. The treatment options may involve either colonoscopic or surgical resection, followed by a course of radioteraphy and chemotherapy. **Case Report:** A 60-year-old man with known history of hemorrhoidal disease presented with symptoms of rectal bleeding, fatigue, weight loss and worsening symptoms over recent months. Paraclinical laboratory tests indicates mild normochromic normocytic anemia with slight hyposideremia. A CT scan revealed nodular intraluminal iodine lesions alongside several diverticula without signs of inflammation. Following a clinical examination, a tumor formation (pedunculated polyp) was identified on the sigmoid colon approximately 20 cm from the anterior border, protruding into almost half of the colonic lumen. Extensive congested hemorrhoids were additionally identified within the anal canal, accompanied by minimal bleeding. The histopathological analysis reveals incomplete fragments of colonic mucosa, displaying a neoplastic proliferation characterized by a villous architecture and high-grade dysplastic alterations. The identified formation could potentially be removed colonoscopically, avoiding the need for surgical interventions. While hospitalized, the patient undergoes treatment with Detrales, suppozitories and Hemovert to allievate rectal bleeding. **Discussions :** Colonoscopic dissection and removal with forceps is a procedure that necessitates monitoring of the pedicle to prevent the potential spread of malignant cells to surrounding areas. Colon cancer reccurence affects approximately 30% to 40% of individuals who have undergone treatment for colon cancer, within the first 2 or 3 years, with about 95% happening within 4 years of surgery. **Conclusions:** Despite the generally grim prognosis accompanying tumor formations in the colon, it is important to acknowledge the existence of scenarios where modern medical interventions exhibit significant efficacy in managing the condition, leading to more favorable outcomes.

Keywords: Pedunculated polype, Hemmorhoids, Colonoscopic dissection

CONCORDANCE BETWEEN CLINICAL AND HISTOPATHOLOGICAL DIAGNOSIS: CASE REPORTS OF MISDIAGNOSED BRONCHOPNEUMONIA

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Introduction: Bronchopneumonia involves acute inflammation of the bronchi with inflamed patches in nearby lung lobules. It is usually bacterial, but can also be due to a viral or fungal infection. Common pathogens include Staphylococcus aureus, Klebsiella pneumoniae, Haemophilus influenzae, Streptococcus pneumoniae, Pseudomonas aeruginosa, and Escherichia coli, with rare cases involving viruses like SARS-Cov-2 or bacteria like Actinomyces. **Case Report:** This report describes two male patients, both 67 years old, who died shortly after the admission to the Emergency Room in Târnăveni, Mureș. Notably, both patients received different clinical diagnoses than those determined during the forensic autopsy. One patient, admitted for hypothermia, was initially diagnosed with a fatal heart attack leading to the drop in body temperature. In contrast, the other patient's cause of death was presumed to be a heart attack and further investigations raised suspicions of a neoplastic lung tumor. During the autopsy for the first patient, the macroscopic diagnosis provided no relevant information except for a pancreatic tumor. The microscopic examination revealed the presence of a massive confluent bronchopneumonia associated with an acute pulmonary edema and acute pancreatitis instead of a neoplasm. In the second case, at the macroscopical examination, a massive pulmonary tumor associated with pneumonia were seen. The microscopic analysis revealed an abscessed bronchopneumonia with bacterial colonies suggestive for Actinomyces infection. **Discussions :** Overlooking complex medical conditions like bronchopneumonia may lead to misdiagnosis during clinical evaluation. It is important to allow enough time per patient to complete the anamnesis and the physical examination. Further investigations such as blood tests and radiological imaging may offer clues for a better presumptive diagnosis and provide enough data to discuss the differential one. Moreover, the histopathology examination completes clinical assessments by offering insights into the underlying pathology. Forensic autopsy is equally important because it uncovers the true cause of death and corrects diagnostic errors. **Conclusions:** These contrasting clinical presentations underscore the challenges in accurately diagnosing and managing complex medical conditions, emphasizing the critical importance of comprehensive evaluations and thorough post-mortem analyses in elucidating the underlying pathology.

Keywords: bronchopneumonia, misdiagnosis, forensic autopsy, microscopic evaluation

A LIFE OF CYSTIC FIBROSIS: A CASE REPORT

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Introduction: Cystic fibrosis (CF) is a multisystemic autosomal recessive disease caused by a genetic defect in the expression of CFTR protein which acts as a chloride (Cl^-) channel expressed in the exocrine glands of several body system. The respiratory system and gastrointestinal tract are the principal systems afflicted, but eventually other organs are also impacted, posing a serious risk to life. Drug therapy, intensive physiotherapy, and dietary support are necessary for management. CF represents a complex chronic disease and therefore requires a multidisciplinary therapeutic approach. Due to its genetic cause the disease cannot be treated, but managed, life expectancy having increased over the later years. **Case Report:** We present the case of a 16-year-old boy that was first admitted to our hospital at the age of 2 months for an episode of intestinal occlusion. CF diagnosis was confirmed after a positive sweat chloride test (Cl- concentration of 119 mmol/l) and after the genetic analysis that confirmed the homozygous delta F508 genotype. Since the age of 6, he had frequent pulmonary exacerbations, the colonization with Pseudomonas aeruginosa being confirmed. Because of the recurrent acute respiratory tract infections 3 years later adenoidectomy was performed. The most recent evaluations revealed that in addition to the presence of pancreatic insufficiency he also developed chronic liver disease. Currently, he is receiving chronic mucolytic treatment with Dornase alfa, pancreatic enzyme replacement therapy, chronic antibiotic therapy, treatment for the chronic liver disease, supplementary vitamins and modulator therapy for his genetic defect. **Discussions :** Pseudomonas aeruginosa is one of the main microbial species colonizing the lungs of CF patients and is responsible for the decline in the respiratory function. Around 50% of patients with CF develop an infection with Pseudomonas aeruginosa leading to serious complications in some cases. The bacterial antibiotic resistance

and the formation of biofilms represent significant challenges for the treatment and can diminish the life quality of the patients. With appropriate aggressive antibiotic treatment, Pseudomonas aeruginosa infection can be eradicated or effectively controlled in CF patients. **Conclusions:** Even though CF can result in multisystemic disease, morbidity and mortality are related to severity of pulmonary manifestations. The survival rate beyond childhood stages in CF patients has increased. This rise can be attributed to improved diagnostic techniques, early recognition of the disease due to the newly introduced screening methods, and the introduction of modulator therapies.

Keywords: cystic fibrosis, Pseudomonas aeruginosa, respiratory infection, antibiotic resistance

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FIRST CASE OF PARAGANGLIOMA ASSOCIATED WITH DE NOVO SDHD GENE MUTATION IN ROMANIA

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Introduction: SDHD is a gene located on the long arm of chromosome 11 that encodes a component of complex II of the respiratory chain. Its germline heterozygous mutations are associated with pheochromocytomas (PHE), hereditary paragangliomas (PGL), gastrointestinal stromal tumors (GIST) and Cowden-like syndrome. Both PHE and PGL are neuroendocrine tumors that originate from the chromaffin cells of the adrenal gland or extra-adrenal (paraganglia). PGL are rare tumors with an incidence of 2-8 cases per million people. **Case Report:** We report the case of a 29 male patient with no significant family history who presented with a palpable ipsilateral neck mass and was firstly presumed to have lymphoma. After he underwent paraclinical procedures (cervical ultrasonography, MRI scan and cervical biopsy), histopathological results invalidated the presumptive diagnosis and confirmed ipsilateral paraganglioma. The germline testing for the hereditary PHE and PGL susceptible genes was performed using NGS and MLPA: MAX, NF1, SDHA, SDHAF2, SDHB, SDHC, SDHD, TMEM127. The result was positive for the heterozygous potentially pathogenic gene c.209G>T on SDHD. The mutation appeared de novo and the recommended treatment was surgical excision. Screening and prophylaxis of SDHD-associated lesions were noted: biochemical measurements of urine and plasma every 6 months (3 years after diagnosis) and then annually; MRI or CT for screening, PET/CT for systemic dissemination suspicion. Genetic counselling was highly recommended. **Discussions :** PHE and PGL are associated with catecholamine secretion. In the presented case, the tumor is non-secretory and as a result, the patient is asymptomatic; but has a risk of 50 % transmitting this mutation to his descendants considering the autosomal dominant inheritance pattern. Malignant PGL are often linked to SDHB mutation, while the ones associated with SDHD mutation are usually benign. Anasuya Guha et al. (2023) documented that predisposition to malignancy is about 1-3 % in SDHD mutation patients with a hereditary background. Malignant PGL could benefit from tyrosine kinase inhibitor therapy, as Yue Zhou et al. (2022) reported that more than 80% of patients with metastatic PGL achieved disease control after this treatment ($p<0.05$). In our particular case, molecular therapy is not taken into consideration. **Conclusions:** Paraganglioma associated with a heterozygous SDHD gene mutation is usually an asymptomatic benign condition, so patients find it hard to accept the risk of transmitting this disease to descendants. Screening methods and genetic counselling are very important and should be considered a must in matters of prediction, prior management and prophylaxis.

Keywords: SDHD gene, de novo mutation, Paraganglioma, Pheochromocytoma

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ANTICOAGULANT OF CHOICE IN CANCER-RELATED VENOUS THROMBOSIS - A CHALLENGE

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Introduction: The prevalence of cancer-related venous thrombosis varies by study, with reported rates ranging from 1.6% to 6%. The risk of thrombosis in cancer patients is influenced by several factors, including the type, histology, and stage of the malignancy, treatment, and specific biomarkers. Furthermore, it is estimated that between 20% and 30% of all first venous thromboembolic events. Anticoagulant therapy, on the other hand, poses a challenge for these patients. **Case Report:** A 56-year-old female, hypertensive, presents to the E.R. for suddenly installed dyspnea, followed by a unique episode of loss of consciousness. At admission, the patient presented

tachycardia and O2 saturation of 89%, with no other changes noted during the physical examination. The ECG trace highlighted sinus tachycardia and S1Q3T3. While laboratory analyses indicated a positive D-dimer test (8640 µg/L). A computed tomography pulmonary angiogram was performed and revealed an acute bilateral pulmonary embolism (PE) with thrombus at the bifurcation of the pulmonary trunk. Anticoagulant treatment with unfractionated heparin with optimal apTT control was initiated in the cardiology department, with switch on Rivaroxaban. During hospitalization, further investigations were performed, but no source of PE was identified. The patient presents a favorable evolution, which is why she is discharged hemodynamically and respiratoryly stable. After one month, the patient begins to experience severe dyspepsia, loss of appetite, and a febrile syndrome of unknown cause. She conducted a gastroenterology consultation, including an upper digestive endoscopy, which raised the suspicion of gastric adenocarcinoma, later confirmed by the histopathological result, for which chemotherapy was initiated. After another 4 weeks, the patient presented to the E.R. for an increase in the volume of the left thigh and cardinal signs. The diagnosis of high-deep venous thrombosis of the left lower limb was confirmed. Rivaroxaban anticoagulant treatment was discontinued, and low-molecular-weight heparin (LMWH) was administered in accordance with the patient's weight, with a favorable subsequent evolution. **Discussions :** Although both new anticoagulants and LMWH are indicated (class IA) in patients with neoplasia and venous thromboembolism, there are no clear criteria to guide the therapy towards a certain class of anticoagulant. **Conclusions:** It is recommended to evaluate each oncological case individually, taking into account the risk of thrombosis/bleeding and, consequently, personalized drug therapy initiation for a better outcome.

Keywords: anticoagulant, cancer, thromboembolic event

PULMONARY THROMBOEMBOLISM CASE REPORT - FROM PREVENTION TO COMPLEX THERAPEUTIC MANAGEMENT

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Introduction: The annual incidence of pulmonary thromboembolism (PTE) is estimated to be around 0.5 to 1.0 cases per 1,000 individuals. However, this incidence may be higher in certain high-risk populations. It is critical to note that the management of unstable patients with PTE should be tailored to the patient's clinical presentation, hemodynamic status, and risk factors, with decisions made in collaboration with a multidisciplinary team. **Case Report:** We present a case of a 67-year-old female who presented to the E.R. for dyspnoea with sudden onset during the day. At the time of presentation, the BP was 142/82 mmHg, HR 92/min and O2 saturation 92% in ambient air. From the medical history, we note a surgical intervention of amputation of the right thigh 14 days prior, in a territorial hospital, without the administration of prophylactic peri- and postoperative anticoagulant. The ECG revealed S1Q3T3, with no other pathological changes. Echocardiography revealed no evidence of right-sided heart failure, and the left ventricle ejection fraction was estimated at 45%. Based on the positive d-dimer test results and the Wells score of 4.5 points (moderate risk - 16.2% chance of PTE), a CT pulmonary angiogram was performed, which confirmed the diagnosis of bilateral massive PTE. The patient presented a sudden deterioration, with BP dropping to 85/40 mmHg and O2 saturation reaching 80%, necessitating vasoactive support with noradrenaline and high-flow O2 via face mask with reservoir bag. Given the patient's hemodynamic instability and the fact that fibrinolytic treatment was absolutely contraindicated (major surgery within three weeks), the multidisciplinary team (emergency medicine doctor, cardiologist, and cardiovascular surgeon) decided to perform open pulmonary embolectomy, with favourable postoperative evolution. **Discussions :** In patients with risk factors for PTE, such as major surgery, prevention is the "treatment of choice". When we have a suspicion of PTE, especially in patients who present risk factors, early confirmation of the diagnosis is desirable, in order to prevent deterioration of the patient's general condition and achieve favourable outcomes. In the hemodynamically unstable patient with absolute contraindications to fibrinolysis, non-invasive treatment is exhausted, and embolectomy is required to save the patient's life. **Conclusions:** This case report highlights the complexities of managing PTE, which is often thought to be a simple disease. Even though prevention is the key, prompt diagnosis and a multidisciplinary approach to therapeutic management are critical in achieving good outcomes.

Keywords: fibrinolysis, pulmonary embolectomy, pulmonary thromboembolism

CONCURRENT CIRRHOSIS INDUCED BY ALCOHOL AND ARSENIC EXPOSURE: UNVEILING PSORIATIC-LIKE LESIONS POST-COVID-19 VACCINATION IN A PATIENT. A CASE REPORT.

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Introduction: Cirrhosis is a complex and potentially life-threatening condition characterized by extensive liver fibrosis and dysfunction. Arsenic trioxide, a compound that has been investigated for its potential therapeutic effects in various medical conditions, poses a potential risk of systemic toxicity. This case report elucidates a confluence of events involving liver cirrhosis linked to chronic arsenic exposure for psoriasis treatment, followed by psoriasis reactivation subsequent to COVID-19 vaccination. **Case Report:** A 52-year-old male was admitted in March 2022 with signs of decompensated liver disease, including ascites, jaundice, and hepatic encephalopathy. Biologically, the patient had elevated levels of ASAT, ALAT, inflammatory and cholestatic syndromes. Ultrasonographically, the liver has a heterogenous appearance, with multiple nodularities and a solid hypoechoic mass located in the cephalic pancreas, but the EUS-FNA does not detect cellular atypias. Immunological testing reveals reacted ANA antibodies. From his medical history, it is noticeable a chronic use of alchohol and arsenic trioxide as a non-conventional treatment for psoriatic lesions in childhood. The dermatological exam showed sharply demarcated, scaly, erythematous plaques found on the occipital and palmar area. According to the patient, the palmar lesion was persistent over time, but the occipital lesion appeared shortly after vaccination against COVID-19. Following a treatment with hydroelectric rebalancing, rifaximin and spironolactone, the patient is discharged with improved status. **Discussions :** The synergistic effects of arsenic and alcohol on liver pathology emphasize the importance of comprehensive environmental and lifestyle assessments in patients presenting with liver disease. The identification of a pancreatic mass in this patient further complicates the clinical picture. Additionally, the co-existence of psoriasis in this patient raises considerations regarding the potential impact of systemic inflammation on both liver and pancreatic disease. Psoriasis is associated with an increased risk of metabolic syndrome and non-alcoholic fatty liver disease. **Conclusions:** In conclusion, the case underscores the intricate relationship between environmental exposures, lifestyle factors, and the development of complex medical conditions such as liver cirrhosis, pancreatic masses, and psoriasis. Comprehensive evaluation and management strategies are essential to address the diverse clinical manifestations and optimize patient outcomes in such complex scenarios.

Keywords: Cirrhosis, Psoriasis, Arsenic, COVID-19

NEONATAL DISTRESS RESPIRATORY SYNDROME IN PREMATURE TWIN PREGNANCY UNDER PERINATAL DEXAMETHASONE TREATMENT

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Introduction: Neonatal Respiratory Distress Syndrome (NRDS), or Surfactant Deficiency Disorder, is a lung condition in infants caused by inadequate synthesis and secretion of pulmonary surfactant.Therefore there is an increased surface tension in the alveoli causing them to collapse.It is more prevalent among preterm infants, with incidence and severity decreasing with gestational age. Risk factors include prematurity, maternal diabetes mellitus, cesarean delivery, male sex, and multiple pregnancy. Signs include tachycardia, tachypnea, grunting, nasal flaring and use of accessory muscles appearing shortly after birth. Complications of NRDS include air leakage, hemorrhage, and bronchopulmonary dysplasia. Fetal lung maturity tests evaluate the risks perinatally, but the diagnosis relies on clinical features, thoracic X-ray, and blood gas analysis. Treatment involves surfactant administration and supportive measures. Prophylactic beta- or dexamethasone treatment 48 hours before birth or between 24-34 weeks of pregnancy is suggested. **Case Report:** A 39-year-old gravid woman with pre-existing hypertension and type II diabetes gives birth via C-section to fraternal twins (Y and X) at 28th weeks of gestational age with very low birth weight. Y--> male BW= 1000gr APGAR 8/1' 8/5' diagnosed with NRDS Medium form. X--> female BW= 1050gr APGAR 7/1' 8/5' diagnosed with NRDS Severe form with early bilateral air leak complication. At the delivery room, deobstruction of upper airways, tactile stimulation, and respiratory support by NCPAP was performed. Once in the NICU, they were both diagnosed with NRDS and surfactant administration was performed

by LISA technique. Patient Y responded well to non-invasive ventilation (NIV), while Patient X required intubation and mechanical ventilation (SIMV) due to severe NRDS. A pneumothorax was suspected in Patient X post-intubation, confirmed by thoracic radiography, necessitating drainage tubes. After 12 days,these tubes were removed. Currently, Patient Y is still on NIV and Patient X with SIMV, both are well controlled and will continue to be ventilated until there is an improvement of BG and respiratory performance. **Discussions :** Multidisciplinary collaboration and research on prophylactic measures is pivotal. Proper gestational follow-up and efforts to prevent prematurity are crucial to reduce NRDS incidence and severity. Recognition and control of predisposing factors, such as glycemic control in diabetic gravidae, is also essential. **Conclusions:** NRDS is time-dependent because it is directly proportional to the degree of respiratory system maturation. Antenatal corticoprophylaxis increases surfactant production and has evident benefits regarding the decreased incidence and severity of NRDS. Nevertheless, individual response influence early complications and later outcomes.

Keywords: Neonatal distress respiratory syndrome (NRDS), Prematurity, Dexamethasone, Multiple pregnancy

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LATE-ONSET CONGENITAL ADRENAL HYPERPLASIA – A LOW-KEY DIFFERENTIAL DIAGNOSIS

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Introduction: Polycystic ovary syndrome (PCOS) is a complex endocrine disorder that comprises multiple potential etiologies and clinical manifestations. The diagnosis involves the presence of at least two of the following criteria: clinical and/or biochemical hyperandrogenism, chronic oligo- or anovulation and the ultrasound appearance of polycystic ovaries. Congenital adrenal hyperplasia is a genetic disorder (mostly due to the 21-hydroxylase deficiency) characterized by increased secretion of adrenal androgens. The clinical manifestations depend on the residual enzymatic activity. The non-classical form of congenital adrenal hyperplasia (NCAH) can lead to similar clinical features as PCOS: alopecia, acne, menstrual cycle imbalances and infertility. For its diagnosis, 17-OH-progesterone is measured in early follicular phase, being elevated in NCAH patients. **Case Report:** A 31-year-old female patient was diagnosed in 2014 with polycystic ovary syndrome based on the ultrasound appearance and biochemical hyperandrogenism, with the specific hormonal tests performed on the 5th day of the menstrual cycle: testosterone: 79 ng/dl, FSH/LH ratio=1/3. The patient presented with couple infertility, for which multiple ovarian stimulations were performed in 2017 but without obtaining a pregnancy. In 2020, due to weight gain and increased pilosity, she underwent an endocrinological evaluation, with the suspicion of NCAH in the presence of elevated 17-OH-progesterone, with the repeated measurement confirming the diagnosis (17-OH-progesterone: 52.78 nmol/L). Furthermore, 21-hydroxylase deficit was confirmed genetically - compound heterozygote V281L/P453S. In april 2021, the patient obtained a pregnancy through ovarian stimulation treatment with letrozole, menotropin, alpha chorionic gonadotropin and intrauterine insemination. Also, Hydrocortisone was introduced in her treatment but she unfortunately experienced a miscarriage at 4 weeks gestational age. In july 2021, under treatment with metformin, hydrocortisone, letrozol and dydrogesterone another pregnancy occured, but it also resulted in a miscarriage at 9 weeks of gestational age. **Discussions :** Patients with NCAH due to 21-hydroxylase deficiency can achieve pregnancies spontaneously. However, in some cases, treatment with Hydrocortisone may be beneficial. The diagnosis of NCAH is often delayed or missed due to the resemblance to the polycystic ovary syndrome, but must always be taken into consideration. Infertility management is difficult especially since multiple factors have impact on it, since our patient is also a smoker and has obesity. **Conclusions:** Infertility, anovulatory cycles and hirsutism are common features of both PCOS and NCAH. Endocrinological evaluation of such women should always include the measurement of 17-OH-progesterone levels in order to exclude NCAH in patients with these clinical manifestations.

Keywords: polycystic, hyperplasia, infertility

THE HIDDEN ROLE OF SLEEP APNEA IN CHRONIC HEADACHE DISORDERS: A DIAGNOSTIC CHALLENGE

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Introduction: In clinical practice, headaches are a common complaint with a variety of etiologies. This case report demonstrates the diagnostic complexities that arise when a patient's chronic headaches are a sign of underlying severe sleep apnea (SSA), a connection that is less prevalent. **Case Report:** A 62-year-old male with a history of non-specific headaches, which were initially managed as tension-type headaches, reported a progressive worsening over a two-year period. The headaches typically started in the evening and were more intense upon waking. The headaches began two years ago after a severe case of COVID-19 that needed non-invasive ventilation. A neurologist followed the patient for these headaches, but no specific cause could be identified. In addition, the patient claims he had problems sleeping when he first came.Despite taking gabapentin for two weeks, which slightly alleviated the pain, the headaches did not fully subside. Due to the refractory nature of the headaches and their impact on sleep and daily functioning, a polygraphy was conducted. It revealed a severe Sleep-Disordered Breathing (SDB) condition with an Apnea-Hypopnea Index (AHI) of 70.6 events per hour, confirming a diagnosis of severe Sleep Apnea Syndrome (SAS). Following the diagnosis, auto-CPAP therapy was recommended to the patient as a next step to address his condition. **Discussions :** Due to the major complaint of headaches lacking classic indications of sleep apnea syndrome (SSA), such as severe daytime sleepiness or loud snoring, the diagnosis process was difficult. It was appropriate to take sleep pathology into consideration because of the nocturnal headaches. This case underscores the importance of a broader diagnostic approach to chronic headaches, particularly when conventional treatments fail. **Conclusions:** Recognizing SSA as a potential cause of chronic headaches can be pivotal in patient management. This case demonstrates the necessity of including sleep studies in the diagnostic evaluation of persistent headache disorders, ensuring timely and targeted interventions.

Keywords: Severe Sleep Apnea, Auto-CPAP, Chronic Headaches, Polygraphy

A RARE CASE OF HYDATID CYST WITH CENTRAL NERVOUS SYSTEM INVOLVEMENT

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Introduction: Hydatid cyst is a very rare disease in our days and furthermore central Nervous system involvement is uncommon. **Case Report:** We present the case of a 46 years old patient that was admitted to the emergency department with complaints of new onset of nonsensical movements, speech and inability to recognize his relatives. He had no known comorbidities. He had been on oral ornidazole and naproxen for two weeks for hydatid cyst and an operation was planned. On physical examination, he was unoriented and incoherent. In laboratory results, hemoglobin level was low; platelets were normal; leukocytes, CRP, ALT, AST, ALP, GGT, bilirubins were elevated. The preliminary report of brain CT imaging was interpreted as normal and In the preliminary report of brain MRI Hydatid cyst was interpreted as central involvement . Lumbar puncture could not be performed in the emergency department because of high INR. Two sets of blood cultures were obtained, Albendazole 2*400 mg; ceftriaxone 2*2000 mg iv and vancomycin 4*500 mg iv were started. Infective endocarditis screening tests were requested. He was hospitalized in the intensive care unit and follow-up was started. He developed a fever in the intensive care unit. Brain MRI report was evaluated in favor of foreground abscess foci. Metronidazole 4*500 mg iv was added to the treatment. Also *Streptococcus intermedius* was found in the blood culture and gentamicin 5mg/kg was started. The dynamic CT imaging of the liver revealed that intra-abdominal ascites was observed in the preliminary interpretation. The patient underwent paracentesis and leukocytosis was present in the sample cell count. Radiology was consulted again and rupture of one of the abscess foci in the left liver was suspected. The patient underwent emergency operation and five liters of intra-abdominal abscess material was drained . Fluconazole 1*400 mg iv was added. Echocardiography performed for endocarditis revealed no vegetation. The

patient was transferred from ICU to gastroenterology clinic. **Discussions :** The presence of multiple infections in a patient with a Hydatid Cyst can pose challenges in treatment and selecting the appropriate medication. Effective management requires a multidisciplinary approach involving medical specialties such as Infectious Diseases, Intensive Care, Gastroenterology, General Surgery and Radiology. **Conclusions:** During the follow-up, ESBL positive Klebsiella pneumonıae was grown in sputum culture. Ceftriaxone was discontinued and changed with meropenem 3*2000 mg iv. The patient was evaluated with control tomography imaging and discharged with completely healing.

Keywords: Hydatid cyst, Albenzdazole, Central nervous system

THE PREVALENCE OF THROMBOEMBOLIC EVENTS IN PATIENTS WITH PERMANENT ATRIAL FIBRILLATION IN THE CONTEXT OF SARS -COV-2 INFECTION

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Introduction: Atrial fibrillation (AF), the most common cardiac arrhythmia encountered in clinical practice, is associated with an increased risk of thromboembolism, leading to serious complications such as stroke, pulmonary thromboembolism, and myocardial infarction. The ongoing COVID-19 pandemic has raised concerns about the potential exacerbation of thromboembolic events in individuals with pre-existing cardiovascular conditions. The aim of this study is to highlight and analyse the prevalence of thromboembolic events in patients with permanent AF at the beginning of the COVID-19 pandemic, in 2020. **Case Report:** This retrospective study was conducted between September and December 2020, regarding patients with diagnosed permanent AF, admitted to the "Medicala 1" clinic, from Targu Mures County Clinic Hospital. We studied 40 patients with AF, most of them with pre-existing cardiac comorbidities. Findings from this research may provide valuable insights into the interplay between permanent AF and the prevalence of thromboembolism, during the COVID-19 pandemic, offering information for clinicians managing patients with these coexisting conditions. **Discussions :** We observed that out of 40 patients admitted in the 4 months period of our study, 19 presented thromboembolic events in their history, including stroke, myocardial infarction, deep venous thrombosis and pulmonary thromboembolism. Additionally, 11 patients presented a SARS-COV-2 infection, none of which was complicated. Furthermore, we detected 12 deaths during the hospitalization, most of them being unrelated to the SARS-COV-2 infections, but to their pre-existing cardiac comorbidities. **Conclusions:** It is of utmost importance to consider and treat all the thromboembolic conditions in patients diagnosed with permanent AF especially in the background of a SARS-COV-2 infection, which can interfere with the normal prognostic and therapeutic approach. The clinical management of both AF and thromboembolism, during the COVID-19 pandemic, can be challenging for the health system, requiring a vigilant and cautious involvement of the medical staff in the screening and treatment of the associated comorbidities in patients with permanent AF.

Keywords: Atrial Fibrillation, Thromboembolism, COVID-19

ULCER SUPRAINFECTION WITH ALCALIGENES FAECALIS: DIAGNOSIS AND MANAGEMENT

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Introduction: Alcaligenes faecalis, a Gram-negative bacteria commonly sourced from soil, water, sewage and occasionally from clinical samples. It is a nonfermentative, nonencapsulated, oxidase-positive, catalase-positive and facultatively anaerobic bacteria, meaning it can grow in both the presence and absence of oxygen. Although typically of low pathogenicity, it may induce opportunistic infections, particularly in individuals with compromised immunity or underlying health issues, leading to diverse manifestations such as urinary tract infections, respiratory tract infections, wound infections, or bloodstream infections. Transmission commonly occurs through droplets and direct contact, such as via nebulizers and ventilation apparatus. **Case Report:** We present the case of a 70-year-old female, known to have a history of multiple cardiovascular comorbidities (peripheral arterial disease, severe ischemic heart disease, severe stenosis of the internal carotid artery, hypertension) and a right hallux amputation. She was admitted to the general surgery department for an ulcerative lesion of the lower limb, from which purulent

discharge was collected and sent for microbiological testing. Subsequently, the specimen was cultured on standard media including blood agar, lactose agar, Sabouraud dextrose agar, and Mannitol salt agar. Two pathogens were isolated - Methicillin-Resistant Staphylococcus aureus (MRSA) with Macrolide-Lincosamide-Streptogramin B inducible resistance (MLSBi) strains of Staphylococcus aureus, along with non-fermenting Alcaligenes faecalis. Biochemical characteristics were studied for the identification of Alcaligenes faecalis, and automatic identification using Vitek 2C system (Biomerieux) was performed. **Discussions :** Chronic limb ulcers are difficult to heal and create a suitable environment for colonization by opportunistic pathogens like Alcaligenes faecalis. Despite Alcaligenes faecalis not typically being present in such infections, an initial MRSA infection may have facilitated the favorable environment for its colonization, thereby complicating the patient's condition. Improper ulcer management or compromised immune systems elevate the risk of secondary infections, including suprainfections with Alcaligenes faecalis. Susceptibility testing relies on standard methods such as disk diffusion or minimum inhibitory concentration (MIC) determination. Nonetheless, the susceptibility profiles can exhibit significant variability across various strains. Proper wound management entails thorough debridement and localized antibiotic therapy. **Conclusions:** Despite severe underlying health conditions predisposing the patient to infection with Alcaligenes faecalis, favorable evolution was observed with appropriate wound care, infection control measures, and comorbidity management.

Keywords: #alcaligenesfaecalis, #ulcer, #microbiology, #infection

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FROM FEVER TO MYOCARDIAL INFLAMMATION: UNMASKING INFLUENZA'S SYSTEMIC IMPAIRMENT – A CASE REPORT

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Introduction: Influenza virus infection remains a significant global health concern, primarily affecting the respiratory system. However, emerging evidence suggests its potential to trigger systemic complications, including myocarditis, a condition characterized by inflammation of the heart muscle. Although myocarditis stemming from influenza is uncommon, it poses a significant clinical burden due to its varied presentations and potential for severe consequences. **Case Report:** We report the case of a six years old girl, admitted in our clinic for respiratory infection with influenza A virus complicated by myocarditis, intrainfectious myositis, acute dehydration syndrome, minimal pericarditis and thrombocytopenia. The onset was 5 days prior to admission fever, vomiting, and headache. Following a negative combined viral antigen test, symptomatic treatment was initiate at home. During the course of the illness, fever and vomiting improved, but the patient developed fatigue, diarrheic stools, and muscle pain in the lower limbs. A combined SARS-CoV-2, influenza, and RSV test returned positive for influenza A, while the laboratory tests indicated elevated cardiac enzymes and liver transaminases, raising suspicion of myocardial involvement. Following emergency cardiology consultation and specialized investigations (ECG: heart rate 100 bpm, flattened T waves in DIII, aVF, V3, negative T waves in V1, V3; echocardiography: apparently good global contractility, minor tricuspid insufficiency), the patient was admitted to the Pediatrics clinic for further investigations, monitoring, and specialized treatment. On 1stday of admission, a cardiology reevaluation recommended the initiation of treatment with spironolactone, along with symptomatic treatment (liver protectors, and rehydration solutions). The patient's evolution was favorable, and she was discharged with recommendations to continue the treatment with spironolactone treatment for 30 days followed by cardiology reassessment and vaccination according to the national schedule, including influenza vaccination for the 2024/2025 season. **Discussions :** Influenza is a common respiratory infection with the potential for severe complications. Acute respiratory infection with influenza A virus complicated by myocarditis currently does not affect cardiac function but requires cardiac monitoring. Early recognition, prompt diagnosis, and appropriate management are essential to prevent complications and reduce morbidity and mortality associated with influenza infection. Vaccination and other preventive measures play a critical role in mitigating the impact of influenza and its complications on public health. **Conclusions:** This case underscores the need for heightened awareness among healthcare providers regarding the diverse clinical presentations of influenza-related complications, facilitating early diagnosis and targeted interventions to mitigate morbidity and mortality associated with myocarditis in the pediatrics population.

Keywords: #influenzavirus, #respiratoryinfection, #myocarditis

HOW THE GENES ARE WRITING OUR FUTURE – A LEFT VENTRICULAR NON-COMPACTION CARDIOMYOPATHY CASE

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Introduction: Left Ventricular Non-Compaction Cardiomyopathy (LVNC) is a complex entity surrounded by controversy regarding its diagnosis, clinical presentation, and prognosis. LVNC is frequently familial, with an autosomal dominant inheritance but variable penetrance and high intrafamilial variability. **Case Report:** We report the case of a ten-year-old male patient diagnosed with LVNC cardiomyopathy after family screening. At the time of the diagnosis, the patient was asymptomatic, with very good tolerance to effort. However, the screening was recommended since his father had been diagnosed with LVNC cardiomyopathy at the age of 40. The physical exam revealed no abnormalities of the cardiovascular system. No ECG changes were identified. The echocardiography showed left ventricular dilatation with prominent trabeculations at the apex and lateral wall of the LV, suggestive of myocardial non-compaction. The ejection fraction (EF) was 50%, fractional shortening (FS) was 28%, and diastolic function was preserved. The cardiac MRI confirmed the diagnosis of LVNC cardiomyopathy (non-compaction of the anterior, anterolateral, and inferolateral wall of the mid-cardiac and apical LV). Holter ECG monitoring did not reveal any arrhythmias or conduction disorders. Treatment with ACE inhibitors (Lisinopril) and beta-blocker medication (Concor) was prescribed. The genetic investigation revealed 2 variants of uncertain significance (VUS): a heterozygous mutation in TPM1 gene possibly associated with dilated cardiomyopathy (DCM), and a heterozygous mutation in DTNA gene possibly associated with LVNC. The evolution of the case was progressively unfavourable; periodic echocardiographic evaluations indicated the critical deterioration of LV contractility, with a reduction in EF to 26% at the last evaluation. **Discussions :** Non-compaction cardiomyopathy remains a chameleonic condition: from aetiopathogenesis to clinical presentation and prognosis. Recently, emphasis has been placed on genetics and genotype-phenotype relation. Family aggregation has been described in approximately 40% to 50% of LVNC cases, and therefore, family screening is recommended in all patients to confirm the diagnosis and to identify asymptomatic relatives. In our case, the patient's father (the index case) had mutations (VUSs) in TPM1, DTNA, and MYL4 genes. TPM1 and DTNA genes are known to be involved in LVNC and DCM. Additionally, mutations in MYL4 gene are linked to arrhythmias. The patient had only two identical mutations to his father, but his symptoms were more severe, and his condition was progressing much faster towards heart failure. **Conclusions:** An adequate diagnostic strategy requires integrating different parameters such as family history, genetics, and imaging studies. Genetic testing in patients with LVNC has proved useful in identifying disease-causing variants.

Keywords: non-compaction cardiomyopathy, genetics, familial

ACUTE HEMOLYSIS IN THE CONTEXT OF TUBERCULOSIS INDUCED SEPSIS

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Introduction: Tuberculosis is one of the most common infectious diseases worldwide. Pulmonary Tuberculosis is the most common type; however, it can affect almost all human organs. In rare cases, it could lead to septic shock, and ultimately to death. **Case Report:** We would like to present the case of a 47-year-old male patient, heavy smoker, with professional exposure for 13 years (wood industry), without significant medical history. He presented to the municipal hospital of Sovata complaining of progressive dyspnea, asthenia, productive cough with muco-purulent expectoration, night sweats and significant weight loss (20 kg in a month). A chest radiography was performed which raised the suspicion of pulmonary tuberculosis, and the patient was transferred to the Pulmonology department in Târgu-Mureş for further investigations. Given the symptoms and imaging results, the case is treated as pulmonary tuberculosis and antituberculosis treatment is initiated. A fiber bronchoscopy is performed and bronchial aspirate is prelevated for BK. Two days later, the patient presents jaundice, and laboratory tests revealed a value of total bilirubin of 6.3 mg/dL, direct bilirubin of 5.1 mg/dL and hemoglobin of 5.9 g/dL. A blood transfusion is requested. The next day, the patient's condition worsens, the blood gas analysis test revealing severe metabolic acidosis and severe hyponatremia. Additional laboratory tests reveal severe anemia

(4.20 g/dL), leukocytosis associated with neutrophilia, inflammatory syndrome and a procalcitonin value of 10 microg/L, and the bronchial aspirate confirms the infection with BK. Later, the patient enters cardiorespiratory arrest through asystole that doesn't respond to the resuscitation efforts and death is declared. **Discussions :** The particularity of this case lies within the hemolysis phenomenon which has as its cause the septic state in which the patient entered from the pulmonary tuberculosis. This situation needs to be treated as an emergency and immediate treatment including hydroelectrolytic, acid-base rebalancing and blood transfusions needs to be initiated. **Conclusions:** Pulmonary tuberculosis can evolve to septic shock, which can result in various complications. To increase favorable patient outcomes, physicians need to understand the symptoms, pathophysiology, and treatment of these complications, including hemolytic anemia.

Keywords: Tuberculosis, Sepsis, Hemolysis

CHOROIDAL NEOVASCULAR MEMBRANE: MORE THAN MEETS THE EYE

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Introduction: Angioid streaks represent ruptures of the mineralized Bruch membrane. Typically, they are linear and radiate from the optic disc. They may be asymptomatic or may develop secondary choroidal neovascularization (CNV) and lead to vision impairment. These can be idiopathic or associated with systemic diseases, such as pseudoxanthoma elasticum, acromegaly or Sickle cell disease. **Case Report:** A 64-year-old male came to the Ophthalmology Clinic complaining about decreased near visual acuity in both eyes. He was known with essential high blood pressure grade 3, first-degree atrioventricular block, possible bicuspid aortic valve, aortic sinus dilatation, aortic insufficiency, mild mitral insufficiency, mild tricuspid insufficiency, hypertriglyceridemia, prostate hypertrophy, ascending aortic aneurysm and hepatic hemangioma. He also had a history of nephrectomy for a renal carcinoma (March 2023). He has been undergoing treatment with Metoprololum, Rilmenidinum, Atorvastatinum and a combination of Perindoprilum, Indapamidum and Amlodipinum. Fundus examination of his right eye (RE) revealed an area of fibrosis approximately 1/3 papillary diameter, surrounded by a few hyperpigmented lesions and a larger yellow lesion, while his left (LE) exhibited paracentrally an area of retinal atrophy and a few drusen. Fundus autofluorescence of both eyes: hypofluorescent lines together with stippled hyperfluorescence emerging from the optic nerve head. Optical coherence tomography (OCT) scans revealed RE: hyperreflective material under retinal pigment epithelium, atrophy in the external retinal layers, large intraretinal cystic spaces; LE: several intraretinal cysts in the inner retinal layer, disruption of outer retinal layers, an area of mixed RPE atrophy and hyperplasia. OCT angiography RE: neovascular structure "medusa head" pattern in the outer retinal slab, while for the LE: no pathological changes are visible. **Discussions :** Considering the patient's age and bilateral presentation, the diagnosis of RE: nAMD (neovascular age-related Macular Degeneration) and LE: dry AMD was taken into consideration. However, the presence of angioid streaks raises suspicion of secondary CNV. Furthermore, considering the associated cardiovascular pathology (aortic aneurysm, HBP) possible pseudoxanthoma elasticum is also considered. **Conclusions:** Each of the pathologies associated represents a risk factor for our patient's prognosis, such as they make it harder to determine the exact etiology of the choroidal condition. This case must be followed for further signs which could resolve our suspicions.

Keywords: angioid streaks, choroidal neovascularization, nAMD, pseudoxanthoma elasticum

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MULTIPLE APPARENT DISEASES, ONE COMMON DENOMINATOR COMPLEX HEALTH CHALLENGES IN A DIABETIC PATIENT

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Introduction: Type 2 diabetes mellitus is considered the most frequent endocrine-metabolic disease, although it remains undiagnosed in almost half of the cases. It is characterized by a deficiency in insulin secretion and insulin sensitivity which leads to altered metabolism of carbohydrates, fats, and proteins. The resulting hyperglycemia can be observed in the fasting state (for increase in hepatic gluconeogenesis), and post-prandial (due to reduced glucose uptake by adipose and muscle cells), which is responsible for the development of micro- and macrovascular complications. **Case Report:** A 74-year-old female presented at the Emergency Department for a myriad of symptoms, including polyuria, polydipsia, visual disturbances, fatigue, weight loss, and paresthesia of

lower extremities with a glycemic value of 520 mg/dL. The patient had a history of hypertension and obesity. After admission to the Diabetology Department laboratory findings confirmed severe hyperglycemic dysregulation (HbA1c: 14.5%), stage IIIB chronic kidney disease, severe dyslipidemia. At lower limb examination we found signs and symptoms of peripheral arterial disease of the right lower extremity, and varicose veins. We performed the Beck's Depression Inventory test which confirmed severe depression. The case requested a multidisciplinary assessment which revealed multiple underlying diseases, among which a giant supraumbilical hernia and stenosis of the right popliteal artery. **Discussions :** Specific symptomatology and a random glycemic value over 200 mg/dL, associated with clinical signs of glycemic decompensation, leads to the diagnosis of diabetes mellitus. Assessing patient characteristics, screening for micro- and macrovascular complications along with the diagnosis of comorbidities are essential at diagnosis. **Conclusions:** Holistic investigation of complex cases is crucial for informed decision-making and to define a suitable treatment plan for the patient. Our patient's management plan integrates lifestyle recommendations, regular blood glucose monitoring and basal-bolus insulin therapy along with multidisciplinary approaches. It is crucial to emphasize the role of glycemic control, cardiovascular health, acute and chronic complications and psychological well-being in diabetic patients.

Keywords: Type 2 Diabetes, Chronic Kidney Disease, Severe Depression, Dyslipidemia

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AN UNCOMMON HEMATOLOGICAL DISEASE: A CLINICAL INVESTIGATION FOR THE PRIMARY TESTICULAR LYMPHOMA

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Introduction: Primary testicular lymphoma (PTL) is a rare and clinically aggressive form of extranodal non-Hodgkin lymphoma (NHL). It accounts for less than 5% of testicular malignancies and 1% to 2% of nHL cases. PTL predominantly affects older men, with a median age at diagnosis of 66 to 68 years. It is the most common testicular malignancy in men over 60 years old and the most frequent bilateral testicular neoplasm. **Case Report:** A 68 yo patient with a weight of 63 kg, presented with marked asthenia, fatigue, intense pain, and paresthesia in both lower limbs, anorexia, and weight loss. Analyses showed moderate anemia (Hb: 7.9), slightly increased transaminases and LDH. Abdominal ultrasound: normal liver, no ascites, Right Sided Hydronephrosis, showing a Kidney of 10.9 cm of dimension, with dilated pelvis and calyx similar to the previous hospitalization. The patient's condition is complicated by several associated conditions including moderate secondary anemia associated with neoplasia, febrile neutropenia, post-chemotherapy thrombocytopenia, secondary immunodeficiency, deep vein thrombosis, paroxysmal self-limiting atrial fibrillation, corrected hypokalemia and hyponatremia, congestive heart failure, chronic ischemic heart disease. **Discussions :** The patient was known to have a PTL IIB, directed to the Oncology department for staging and further treatment. He was administered for R-CHOP3 associated with Methotrexate. Since this moment the patient began the treatment showing improved general condition after, showing normal abdomen at palpation. The patient was advised to avoid physical exertion as well as prolonged bed rest. He was recommended to take short daily walks and to follow a salt-free diet for another 3-4 days. **Conclusions:** The case highlights the complexity of managing high-grade mature B-cell testicular lymphoma, stage IIB, with multiple associated conditions. It underscores the importance of a comprehensive approach to patient management, taking into account the various complications that can arise during treatment.

Keywords: Testicular Lymphoma, Thrombocytopenia, Atrial Fibrillation, Heart Failure

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ACTIVATION OF A QUIESCENT CHOROIDAL NEOVASCULARIZATION IN A PATIENT WITH DEGENERATIVE MYOPIA

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Introduction: Pathologic myopia (PM) is one of the leading causes of visual impairment worldwide. The pathophysiology of PM is not fully understood, but the axial elongation of the eye followed by chorioretinal thinning is suggested as a key mechanism. PM may lead to many complications such as chorioretinal atrophy, foveoschisis, choroidal neovascularization, rhegmatogenous retinal detachment, cataract, and glaucoma. **Case Report:** A 66-year-old female came to the Ophthalmology Clinic for a routine ophthalmologic check-up. She mentioned experiencing an ocular trauma in her right eye (RE) during her youth. Measured refraction was RE: -

19.50 Sf, -4.75 cyl 5° while LE: -19.00 Sf, -2.75 cyl 180°. Best corrected visual acuity (BCVA) RE was counting fingers at 30 cm and LE 0.4 with correction. Anterior segment examination revealed RE: stage 5 hypermature cataract while LE: stage 2+ cortico-nuclear cataract. Ocular fundus examination RE: exibited extensive macular atrophy extending close to the temporal vascular arcades, and LE: temporal papillary staphyloma, with a parafoveolar atrophic area. Optical coherence tomography (OCT) showed LE: hyperreflective material in the parafoveolar area, above the pigment epithelium. OCT angiography (OCTA) LE highlighted a hyperreflective material in the central outer retina, consistent with a choroidal neovascular membrane. Given the absence of symptoms and lack of activity in the neovascular membrane, it has been decided to closely monitor the patient. One month later, she reports the onset of metamorphopsia LE (BCVA=0.2). On OCT section, an increase in retinal thickness is observed, with persistent membrane on OCTA. Therefore, it has been decided to initiate treatment with intraocular injection of aflibercept anti-VEGF 0.05 ml. At the one month follow-up, BCVA improved to 0.4, accompanied by a decrease in retinal thickness observed on OCT. **Discussions :** The particularity of the case comes from the single functional eye and the absence of symtoms. We chose to reduce the risks for our patient and monitor her closely. Once the first symtoms appeared, prompt treatment with a single intravitreal injection of anti-VEGF therapy was performed. **Conclusions:** The choice to closely monitor the pacient and start Aflibercept treatment once the onset of metamorphopsia appeard led to the most favourable response: a significant improvement of visual acuity with a visible decrease in retinal thickness OCT.

Keywords: myopia, choroidal neovascularization, metamorphopsia, OCTA

LETHAL GENE MUTATION IN CHILDREN - HOW TO MANAGE THE INEVITABLE?

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Introduction: The most common hereditary neuromuscular disease conventionally known to this day is Duchenne muscular dystrophy (DMD), affecting 7.1 in 100.000 males. This X-linked recessive muscle disease is characterized by the body's inability to synthesize dystrophin - a muscle protein responsible for the integrity and alignment of the sarcoplasm to the myofibrils during contraction and relaxation. **Case Report:** We present the case of a 9-year-old patient who despite having an APGAR score of 10 at birth, showed early signs of motor deterioration. Throughout the years, his mother reported severe difficulties in walking (flatfoot, toe walking) and in standing up (positive Gowers sign). The patient also presents with chest pain, sleep apnea, lumbar lordosis and delayed intestinal motility. EKG results reveal left ventricular hypertrophy, while the echocardiogram shows minor tricuspid and pulmonary insufficiency. Blood tests indicate - LDH levels reaching 1162 U/l and phosphocreatine kinase levels 4579 U/l. Liver function tests show elevated AST and ALT levels of 188 and 332 respectively. Molecular testing of DMD gene using NGS methods depicted frameshift mutation caused by the deletion of 2 nucleotides: adenine and guanine, 144_145del. The treatment consisted of Prednisone (3x5mg/day), Aspacardin (¼¼ 0/day), Liv52 (2x5ml/day), Uteplex (1 vial/day), logopedic therapy and kinetotherapy. It was later discovered that the patient presented an underlying cognitive deficiency (IQ=65) struggling with learning and talking, as well as hyperkinesia and anxiety. **Discussions :** Duchenne muscular dystrophy is a lethal childhood myodegenerative condition and at the moment there is no effective treatment available for it. Although the median life expectancy for people with DMD has increased impressively in the past decades, it still doesn't surpass 27 years old without ventilatory support. Muscle damage appears not only in the limbs, but also in cardiac muscle and diaphragm, hence the cardiac and respiratory failure connected to DMD. Promising medical discoveries include molecular therapy as a form of treatment, such as antisense oligonucleotide-mediated exon skipping which enables the synthesis of semi-functional dystrophin. Research shows that AONs can restore dystrophin in cardiac muscle potentially delaying the evolution of heart failure. **Conclusions:** This patient represents a rare case of DMD associated with a late diagnosed cognitive deficiency. Although there is no curative treatment available yet, collateral effects can be managed with conservative care and the disease progression can be delayed. Clinicians should therefore be particularly suspicious in cases where young patients present with characteristic clinical indications of muscle weakness, difficulties walking, calf hypertrophy and lumbar lordosis.

Keywords: Duchenne muscular dystrophy, Frameshift mutation, Molecular therapy

DIFFUSE ALVEOLAR HEMORRHAGE AS A RECURRENT MANIFESTATION OF PANCA-POSITIVE MICROSCOPIC POLYANGIITIS: LONG-TERM PROGNOSIS AND EFFECTS ON DISEASE MANAGEMENT

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Introduction: Microscopic polyangiitis (MPA) is a form of ANCA-associated small vessel necrotizing vasculitis. MPA can often present with rapidly progressive glomerulonephritis (RPGN) and pulmonary involvement as mode of onset. Diffuse alveolar hemorrhage (DAH) is a life-threatening pulmonary complication of MPA following the disruption of the alveolar-capillary interface. **Case Report:** We present the case of a 63-year-old female with a history of MPA, insulin-dependent type 2 diabetes mellitus, and dialysis-dependent chronic kidney disease KDIGO G5. The MPA was diagnosed in 2016, following the rapid decline of kidney function by RPGN. Management of the patient included prednisone, cyclophosphamide, plasmapheresis, and Pneumocystis jiroveci prophylaxis. Azathioprine usage was discouraged due to adverse effects. A pulmonary AngioCT (2023) revealed changes suggestive of alveolar hemorrhage (areas of pulmonary consolidation and ground-glass opacities bilaterally, with centro-lobular distribution, confluent, more pronounced in the postero-basal regions, with air bronchograms, without pleural collections). The patient suffered two episodes of sepsis (2016, 2023) as a side-effect of cyclophosphamide. In January 2024 the patient presented with fatigue and hemoptysis which began 5 days prior. Anemia (Hbg=9,4 g/dl), increased CRP (10,49 mg/dl), sed rate (97 mm/h), creatinine (4,88 mg/dl), transaminases (TGP=74 U/L, TGO=47 U/L), and elevated pANCA levels (163 UR/ml) indicated active MPA. Prednisone was increased to 35 mg/day. Based on her previous side-effects to therapy and her suboptimal clinical presentation the medical team decided switching to Rituximab induction therapy with a dose of 375mg/m2, administered weekly, for four cycles, with a reevaluation scheduled at 8, 16, and 24 weeks. **Discussions :** In patients with MPA complicated by DAH, the 1- and 5-year survival rates are notably lower compared to the general MPA population, highlighting DAH as a significant factor contributing to mortality. Factors associated with increased mortality risk in MPA patients with DAH include age over 65, low PaO2/FiO2 ratio, extent of lung involvement, and elevated serum creatinine levels. Early diagnosis, comprehensive management, and regular follow-up are crucial for improving survival rates. Rituximab has emerged as a validated induction treatment for severe MPA, showing comparable efficacy to cyclophosphamide, especially in refractory cases and those with contraindications to cyclophosphamide. Additionally, rituximab demonstrates superiority over conventional immunosuppressive treatments for remission maintenance therapy. Further studies are needed to confirm the efficacy of rituximab in MPA patients, particularly those with DAH. **Conclusions:** DAH is a life-threatening condition and a predictor of long-term morbidity and mortality in patients with MPA.

Keywords: Microscopic polyangiitis, pANCA, diffuse alveolar hemorrhage, Rituximab

BRAF V600E ADVANCED MELANOMA MANAGEMENT: A CASE REPORT

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Introduction: Melanoma is a melanocytic malignant tumor responsible for less than 10% of skin cancers but is simultaneously the main cause of skin cancer mortality. The aim of this case report is to present the management of a patient with superficial spreading melanoma and BRAF V600E mutation. **Case Report:** A 67-year-old male patient with a 1.5 cm cutaneous black lesion with ulceration and a satellite lesion on the proximal third lateral part of the left leg came to the Cancer Institute. The ultrasound detected chronically reactive features in the left inguinal region, suggestive of regional lymph node involvement. Wide local excision and left inguinal lymph node dissection were done. Histopathological specimen examination confirmed the diagnosis of superficial spreading melanoma, a Breslow thickness of 7 mm, and Clark Level IV, pT4bN2aL0V0R0, stage IIIC. The patient started treatment with Interferon. After ten months, a CT scan identified nonspecific pulmonary nodules, located mostly subpleural and with the largest one being of 6 mm in the lateral basal segment. At one year distance, another CT scan was done, and it showed a few nodules up to 12 mm diameter in both lungs, indicatory of pulmonary metastases. The BRAF V600E mutation was diagnosed, and treatment with Dabrafenib and Trametinib was initiated. After eight months of treatment, pulmonary metastases regressed, and fibrotic changes appeared. Some adverse effects appeared,

without the need for discontinuation of treatment: gastrointestinal toxicity grade I, headache, hyperglycemia, grade 1 thrombocytopenia. Following three years of targeted therapy, a cutaneous metastasis on the left arm appeared and it was excised with surgical margins. In multidisciplinary team, it was decided to continue the same treatment due to oligometastatic disease. BRAF+MEK inhibitors were administered for six years until the onset of cerebral metastases, treated by surgery. In the present, the patient with good performance status has started immunotherapy with checkpoint inhibitor, PD L1. **Discussions :** Approximately 50% of melanomas have BRAF mutations, 90% represented by V600E mutation. These mutations activate the MAPK pathway. The BRAF V600E mutation is a positive predictive marker because targeted therapies improve survival of patients with late-stage melanoma. That is why BRAF mutation testing is important for an informed treatment decision. However, recurrences can appear even after surgery and adjuvant therapy, like in our case report. **Conclusions:** This case report shows the importance of targeted therapies after molecular testing and vigilant surveillance for the prevention of melanoma recurrence.

Keywords: melanoma, BRAF V600E, targeted therapy, immunotherapy

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ACUTE RESPIRATORY FAILURE IN A COPD PATIENT: A TROJAN HORSE FOR INFECTIVE ENDOCARDITIS

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Introduction: Infective endocarditis is a microbial infection affecting endothelial cardiovascular structures. The widely accepted pathogenetic theory suggests a progression from endothelial injury with deposition of non-infective sterile thrombotic vegetations to transient bacteremia and microorganism adhesion. **Case Report:** We present the case of a 58-year-old patient who experienced loss of consciousness at home following an episode of acute respiratory distress . The patient was known to have severe COPD classified as grade IV, requiring long-term oxygen therapy. Upon admission to the ICU, the patient was diagnosed with hypercapnic coma (pCO2=75mmHg). Laboratory findings indicated elevated procalcitonin levels, suggesting an infectious process likely causing the COPD exacerbation. Sequential blood cultures taken 3 days apart confirmed Enterococcus faecalis infection. The positive blood cultures prompted a cardiology consultation for suspected acute infective endocarditis. The echocardiography detected an echogenic formation structure, without mobility, at the mitro-aortic junction along with a newly diagnosed grade 2/3 aortic regurgitation. During hospitalization, the patient developed worsening dyspnea, associated with productive cough, diffuse bilateral crackles and progressive bilateral lower limb edema, posing a diagnostic challenge between another COPD respiratory exacerbation or acute left ventricular failure. Subsequently, a transesophageal echocardiography revealed a large vegetation adherent to the right coronary cusp, an aortic ring abscess and severe aortic insufficiency resulted from mechanical valve destruction. Thus, the diagnosis of infective endocarditis was established based on the major diagnostic criteria including positive blood cultures and imaging findings. **Discussions :** Acute aortic insufficiency represents an emergency due to the left ventricle's inability to adapt to the sudden rise in diastolic pressure, potentially progressing to pulmonary edema. The treatment entails immediate mechanical aortic valve replacement, as was performed for this patient. A particular aspect of the case involves the unidentified origin of Enterococcus faecalis infection. In this case it could be related to the multiple hospitalizations of this patient who also lacked documented history of valvular disease or cardiac pathology, atypical for developing endocarditis. Nevertheless, native valve endocarditis may develop upon normal valves in up to 30% of cases. Furthermore, literature documents associations between Enterococcus faecalis infective endocarditis and colorectal cancer as another potential etiology. **Conclusions:** The acute respiratory distress and severe hypercapnia in a COPD patient masked an underlying infectious outbreak, ultimately traced to infective endocarditis resulting in mechanical destruction of the aortic valve, development of acute severe aortic regurgitation that lead to manifestations of acute left ventricular failure.

Keywords: infective endocarditis, COPD, dyspnea, enterococcus faecalis

PRIMARY HYPOTHYROIDISM COMPLICATED WITH MASSIVE PERICARDITIS AND ATHEROSCLEROTIC CAROTID ARTERY DISEASE

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Introduction: Primary hypothyroidism occurs after destruction of the thyroid tissue because of autoimmunity,- or medical interventions such as radiation, radioiodine therapy or surgery. Small pericardial effusion is commonly observed in primary hypothyroidism, but massive pericardial effusion with or without cardiac tamponade is rare. This case emphasizes the importance of a rapid and multidisciplinary management of patients with severe, complicated hypothyroidism. **Case Report:** We report the case of a 57-year-old hypertensive, dyslipidemic, female patient, who presented to hospital for stinging chest pain, dyspnea, and lower leg edema. The ECG on admission showed microvoltage in the limb leads and flattened T waves in leads III, aVF, and V2-V3. Echocardiographic evaluation revealed a large pericardial fluid collection, with collapse of right cardiac chambers. Laboratory data showed severe hypothyroidism together with severe hypercholesterolemia and increased liver and myocardial enzymes and D-dimer levels. Pericardial puncture was performed, followed by improvement of symptoms and lack of pericardial effusion recurrence. The patient was started on thyroid hormone replacement therapy. Doppler carotid ultrasound showed bilateral carotid artery stenoses, confirmed at carotid angiography, and right internal carotid artery angioplasty with stent implantation was performed. **Discussions :** This case illustrates the rare association of two severe conditions, massive pericardial effusion and carotid atherosclerosis in the presence of severe dyslipidemia, that guided the physicians towards the diagnosis of severe hypothyroidism.The diagnosis was further supported by the favorable clinical evolution and the absence of effusion recurrence under hormone replacement therapy. **Conclusions:** The case underlines the major role that comprehensive patient evaluation and medical reasoning play for establishing a rapid, accurate diagnosis and establishing an adequate, etiologic therapy.

Keywords: Myxedema, Pericarditis, Pericardiocentesis, Atherosclerotic carotid artery disease

BEYOND THE SURFACE: UNVEILING THE CHALLENGES OF SEVERE PNEUMONIA AND FULMINANT PURPURA IN ADOLESCENCE

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Introduction: Purpura fulminans (PF) is a severe and potentially life-threatening condition characterized by the sudden onset of skin hemorrhage and tissue necrosis, often accompanied by intravascular coagulation. **Case Report:** This case report presents a 15-year-old male from a rural area admitted to Târgu Mureș Emergency Hospital with symptoms of dry cough, high fever, and headache. Despite initial treatment with antibiotics and antipyretics at home, his symptoms persisted, leading to hospitalization. Upon admission, the patient presented with dry cough, normal chest configuration, decreased breath sounds in the right basal lung, and crepitant rales. Laboratory investigations revealed elevated levels of C-reactive protein (CRP) and a chest X-ray showed small opacities in the right infrahilar region suggestive of a developing consolidation focus. Based on clinical and laboratory findings, a presumptive diagnosis of right basal pneumonia was made, and treatment was initiated with iv antibiotics and symptomatic therapy. Over the following days, the patient's condition deteriorated. Blood cultures were negative, but the antibiotic was switched to a broad-spectrum antibiotic. Afterward, the patient experienced a semi-productive cough, vomiting, and a purpuric rash. It started from the lower limb, then progressed to the trunk, followed by the upper limb, and finally reached the oral cavity. **Discussions :** Differential diagnoses considered at this stage included acute infectious purpura fulminans, Kawasaki disease, and meningococcemia. Antibiotic treatment was halted, and further investigations, including lumbar puncture and consultations with infectious disease, cardiology, and ophthalmology specialists, were initiated. Meningitis was ruled out, and no significant abnormalities were found in cardiological and ophthalmological evaluations. **Conclusions:** The final diagnoses included right lower lobe pneumonia, systemic inflammatory response syndrome, and acute infectious purpura fulminans. The patient's condition improved gradually with treatment consisting of broad-spectrum antibiotics, anti-inflammatory medication, antiemetic, alongside supportive therapy involving rebalancing treatment with glucose and Ringer's solution. This led to the resolution of fever and purpuric lesions, as well as an improvement in

respiratory symptoms. This case underscores the critical importance of accurate diagnosis and prompt initiation of appropriate antibiotic therapy.

Keywords: Purpura fulminans, Meningitis, Broad-spectrum antibiotics

A JEWEL IN DISGUISE: DARIER-ROUSSY SUBCUTANEOUS SARCOIDOSIS

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Introduction: Sarcoidosis is a granulomatous, systemic disorder that can impact various organs. Darier-Roussy subcutaneous sarcoidosis is a rare subtype, representing approximately 3% of cases. **Case Report:** We report the case of a 57-year-old female patient admitted to the Dermatology Clinic for the progressive appearance on the lower limbs of indurated, well-defined, round-shaped purplish nodules. Laboratory investigations identified no infectious triggers, nor positive autoantibodies. Pulmonary and ophthalmologic examinations were within limits. The histopathological examination of one of the nodules described multiple granulomas located in the reticular dermis and hypodermis, with no central necrosis, and composed of epitheloid cells with eosinophilic cytoplasm, multinucleate giant cells, and asteroid bodies. Based on clinical and histopathological examination a positive diagnosis of limited Darier-Roussy subcutaneous sarcoidosis was established. The patient was started on systemic steroids, with complete regression of skin lesions after 18 months. The patient was under careful follow-up for two years, with no subsequent cutaneous lesions or disease progression evidence. **Discussions :** Other studies suggest exploring hydroxychloroquine as an alternative treatment for subcutaneous sarcoidosis, aiming to mitigate the long-term side effects associated with corticosteroid therapy. This approach hypothesizes hydroxychloroquine's potential to modulate antigen presentation to T-helper cells. Ophthalmological evaluations are advised due to potential ocular complications. However, further research into hydroxychloroquine's efficacy is challenged by the condition's rarity. This underscores the ongoing need for investigating alternative therapies to ensure patient well-being and minimize treatment-related risks. **Conclusions:** Cutaneous involvement in sarcoidosis is useful not just for the positive diagnosis, but for the proper, comprehensive management of such patients. Even though it is normally associated with a favorable prognosis, a multidisciplinary approach to such patients is mandatory for the precocious detection of extracutaneous lesions.

Keywords: sarcoidosis, giant cells, hydroxychloroquine

HORMONE REPLACEMENT THERAPY (HRT) IN 30-YEAR-OLD PATIENT EXPERIENCING MENOPAUSE SYMPTOMS FOLLOWING WERTHEIM SURGERY

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Introduction: Lately, an increasing number of women have been resorting to hormone replacement therapy to alleviate menopausal symptoms in order to improve their quality of life. **Case Report:** We present the case of a 30-year-old woman who was found to be HPV-16 positive during routine testing. A pap-smear revealed high grade squamous intraepithelial lesion (HSIL), this was followed by a biopsy which established the diagnosis as being squamous cell carcinoma of the cervix. The patient had undergone a caesarean-section 2 years prior and was not HPV vaccinated. After a pelvic MRI the stage of the cancer was determined as T1A squamous cell cervical carcinoma. Afterwards, the patient underwent Wertheim surgery consisting of a radical hysterectomy, pelvic lymphadenectomy and bilateral adnexectomy without ovarian transposition. The Oncology Committee concluded that the patient should undergo postoperative treatment involving external radiotherapy and brachytherapy. 6 months afterwards, the patient reported menopause symptoms. As a result of this, the gynaecologist suggested hormone replacement therapy with bioidentical hormones in order to reduce the risks of cardiovascular complications and osteoporosis while ensuring a better quality of life. 1 month after starting HRT the symptoms of menopause were alleviated and the patient resumed normal activity functioning as a typical person would. **Discussions :** Bioidentical hormones are considered the best treatment option for menopause, especially in non-physiological situations such as this case. These hormones are supposed to replace the lack of endogenous hormones and sustain normal bodily function. **Conclusions:** Adjusting and maintaining quality of life can be

achieved through functional medicine and individualised treatment.

Keywords: HPV, Hormones, Menopause, Cervix

TAKAYASU ARTERITIS: A RARE DISEASE WITH ATYPICAL PRESENTATION

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Introduction: Takayasu arteritis is an uncommon autoimmune disease primarily affecting the aorta and it's major branches, usually seen in young women. While it's classical symptoms include fever, weight loss, and hypertension, Takayasu arteritis can present in atypical ways, leading to a complicated diagnosis. **Case Report:** This case involves a 38-year-old female who visited the doctor in 2022 with neck pain, occipital headache, vertigo, and blurred vision, and was diagnosed with C3-C6 cervical discopathy by MRI of the spine. Additionally, the patient had a history of tuberculosis at the age of 16 and is known to have hyperthyroidism, minor valvular insufficiency, and mixed dyslipidemia. The symptoms persisted, making her seek evaluation from a cardiologist in 2023, who identified differences in blood pressure between the two arms during examination (BP left arm: 80/20mmHg, BP right arm: 130/70 mmHg). A Doppler echography revealed tight stenosis in the left subclavian artery and a thoracic computed tomography with contrast was recommended. The CT scan revealed stenosis of the left subclavian artery and involvement of the ascending, arch and descending aorta as well as the left carotid artery. A percutaneous angioplasty with stent placement was performed in July 2023, but restenosis occurred within the stent. A reintervention was performed in February 2024, where drug-eluting balloons were placed and a rheumatological consultation was recommended. A CT angiography was performed, revealing thickening of the aortic wall at the level of the descending aorta and the left common carotid artery. Moreover, the left subclavian artery presents, from its origin, a peripherally thrombosed endoprosthesis with a permeable filiform lumen. This aspect suggests a diagnosis of Takayasu arteritis stage IIb. It was initiated treatment with glucocorticoids 1mg/kg/day (methylprednisolone 48mg/day) for one month, then tapered gradually and immunosuppressive therapy with Methotrexate 15 mg once a week. **Discussions :** Notably, the patient's symptoms were atypical for Takayasu arteritis, lacking classical features such as fever, hypertension, and weight loss, and exhibiting stenosis limited to the left main branches of the aortic arch, resulting in unilateral symptomatology. While the precise mechanisms of the disease remain unclear, potential links between tuberculosis and Takayasu arteritis could involve shared immunological pathways or mycobacterial antigens triggering autoimmunity. **Conclusions:** This case highlights the challenges in diagnosing and managing Takayasu arteritis, particularly in atypical presentations necessitating multidisciplinary collaboration. Timely recognition and initiation of treatment are crucial to prevent irreversible vascular damage and complications.

Keywords: Takayasu, tuberculosis, stenosis

MOLECULAR TESTING CLARIFIES HLA-B27 FLOW-CYTOMETRY AMBIGOUS RESULT

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Introduction: Ankylosing spondylitis is a chronic, inflammatory, auto-immune disease that affects spinal joints leading to fusion and limiting movement. It causes chronic pain, as well as articular and extra-articular symptoms. Most affected individuals are positive for HLA-B27, which is a predisposing factor for the disease. **Case Report:** We present the case of a patient known with pulmonary fibrosis and asthma diagnosed with professional lumbar discopathy since December 2023. The disease evolved with chronic pain in the small joints of the hands, feet, ankles, and bilateral omalgia with limited abduction of the upper limbs. Notably they complained of treatment-resistant chronic pain of the spine with persistent cervical pain. The MRI revealed diffuse sclerotic degeneration and inflammatory changes in the cervical and sacroiliac joints. In January 2024, the patient was discovered with leukocytosis and neutrophilia, while having an extended negative panel of other inflammatory markers. It is worth noting that the patient's HLA-B27 flow cytometry testing has yielded an uncertain result, but molecular testing confirmed the presence of the marker. **Discussions :** Ankylosing spondylitis is a seronegative arthropathy strongly associated with HLA-B27 as a genetic risk factor involved in the pathogenesis of the disease. In terms of diagnostics, immunological test is the first-line laboratory analysis performed, as it is a cost effective and time-efficient test compared to molecular testing. In the case of our patient, we observed an ambiguous flow cytometry

result, T-cells were expressing dim (diminished expression) HLA-B27 marker. Therefore, the result needed a genetic test to confirm the presence of HLA-B27. Literature debates the reasons behind the unclear labeling patterns in flow cytometry, possibly explained through cross-reactive binding of anti-HLA-B27 antibodies to different HLA-B molecules such as HLA-B18, HLA-B35, HLA-B14, and especially HLA-B07, which could have such strong cross-reactivity that it can mask the presence of HLA-B27. Sequence-specific oligonucleotide (SSO) and sequence-specific primer (SSP) technologies could be employed for HLA typing to establish if this was true in the aforementioned case. Nevertheless, the quality of the technique and positive control is paramount in the immunological test **Conclusions:** AS is commonly diagnosed using flow-cytometry HLA-B27 testing, but the commercially available antibodies have been proven to have cross-reactivity to other HLA-B molecules, leading to unclear test results. In such cases genetic testing needs to be performed for confirmation.

Keywords: ankylosing spondylitis, HLA-B27, flow cytometry

EVALUATING OSTEOPOROSIS BEYOND THE DXA MEASUREMENT

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Introduction: Osteoporosis is a skeletal endocrine disease, characterized by loss of trabecular and cortical bone mass leading to deterioration of bone microarchitecture, increased fragility, and susceptibility to fractures. The 10-year probability risk of a pathologic fracture is determined using the FRAX assessment tool. **Case Report:** We present the case of a 56-year-old patient who was admitted to the Endocrinology Department for a routine consultation without any subjective complaints. In her medical history, she had a vaterian ampulloma that was surgically removed and treated with chemotherapy in 2006, as well as a history of two right ankle pathologic fractures following minor trauma in 2021 and 2023. Her BMD was previously assessed with a DXA evaluation with a T-score -3 SD at an L1-L4 level and T-score of -2.7 SD adjusted for TBS, and a family history of hip fractures in both parents. Clinical examination revealed a high-risk primary osteoporosis (menarche at 15 years old and menopause at 50 years old), a D7 vertebral compression fracture, as well as a high FRAX+ score. **Discussions :** Based on etiology osteoporosis is split into primary osteoporosis (type 1 in postmenopausal women or type 2 senile osteoporosis over 60 years old), and secondary osteoporosis mostly due to use of long-term therapy with glucocorticoids, as well as other endocrine or systemic diseases. The clinical treatment is based on the T-score value, as well as the high risk of osteoporotic fracture probability calculated using FRAX. Therefore, to further improve the accuracy of determining a future fracture, the FRAX+ tool was developed and adjusted for the measurement of a better estimated probability, based on clinically relevant parameters such as recency and site of osteoporotic fracture, high exposure to oral glucocorticoids, numbers of falls in the past year, concurrent data on lumbar spine BMD trabecular bone score (TBS), hip axis length, and type 2 diabetes mellitus. This is particularly helpful, in selecting the treatment approach with some medications, like Teriparatidum a recombinant human parathyroid hormone used to increase bone strength in patients at high and very high risk of fragility fractures, but also in treatment of glucocorticoid induced osteoporosis. **Conclusions:** Initiating the most appropriate treatment for osteoporosis requires not just DXA measurements, but is also dependent on using the FRAX tool. In patients such as ours with primary osteoporosis, and significant clinical indications using FRAX+ would further support the initiation of more appropriate treatment such as Teriparatidum.

Keywords: osteoporosis, FRAX+, DXA

UNEXPECTEDLY - PREMATURE TWINS IN PREHOSPITAL CARE – A CASE REPORT

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Introduction: Neonatal cardiopulmonary arrests are rare but serious events. While most births take place in a hospital, there are cases when emergency medical services are called to provide urgent care in prehospital births if they face complications. If the mother is beyond 24 weeks gestation, the initial priority is to save the lives of the mothers and infants. **Case Report:** We present a premature twin birth, where the intensive care ambulance team (TIM C1) received an alert to help their paramedic colleagues (B2) in assisting with the delivery of a 30 week twin pregnancy. A few minutes later they announce that they have to stop because the labour has begun. When we arrived with the intensive care ambulance, the first newborn was already expelled, was in the care of members of

the first aid crew, applying the drying, warming, stimulating, airway suctioning maneuvers. By the first, with APGAR score 1/1', we measured an SpO2 of 58%, a HR < 100/min, in whom we performed 4 minutes of resuscitation with positive pressure ventilation. The second newborn with APGAR score 1/1' had an SpO2 of 46%, a HR < 60/min, who received 6 minutes of CPR (PPV and chest compressions). Later, showing spontaneous breathing and a HR > 100/min, they were transported together in an incubator to the intensive care unit of the Neonatalogy I of the Emergency County Clinical Hospital Târgu Mureș. The first was transported with free flow O2 4L/min, the second one on CPAP mask. The mother was hemodynamically stable and was taken to the Gynecology department. **Discussions :** It is a basic principle that for non-breathing newborns, ventilation should start within 60 seconds after birth ("Golden minute"), because the most important step in resuscitation of a newborn is timely and effective ventilation. This was successfully achieved in both cases. One another ("Golden hour") concept reviews a baby's health status in five critical areas: respiration, cardiovascular function, neurological response, fluid and glucose levels, body temperature in 60 minutes. In our case the total time between delivery and arrival at the hospital was below 30 minutes. The particularity of the case is the age and weight of the twin fetuses, the total weight of the two was only 1500 grams. **Conclusions:** Professionals providing prehospital care must have the skills to recognize the approach of childbirth, prepare for immediate resuscitation of the newborn and postpartum care of the mother in order to increase the survival rate.

Keywords: prehospital emergency care, premature twins, cardio pulmonary resuscitation, golden minute and hour

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SYMPTOMS YOU SHOULD NOT IGNORE - UNDERLYING APPENDIX CANCER: A CASE REPORT

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Introduction: Appendiceal neoplasia is rare, making up about 0.5% of gastrointestinal tumors, with an incidence of 6 cases per million annually. It often goes unnoticed and is accidentally identified during appendectomies due to heterogeneous origin and nonspecific symptomatology. **Case Report:** A 62-year-old male patient presented with pain in the right hypochondrium and right lumbar regions, increased postprandially, and rectal bleeding with an insidious onset 2 months prior. The patient has a history of Los Angeles Grade A reflux esophagitis, gastroesophageal reflux disease, hiatal hernia, erosive acute duodenitis, hepatic steatosis, and is overweight. An abdominal ultrasound and transient elastography were performed with difficulty because of the adipose tissue, only revealing the preexistent hepatic steatosis, and a colonoscopy was recommended to further investigate. On colonoscopy, multiple colon polyps were found, and an endoscopic polypectomy was performed. Moreover, an appendix tumor was discovered, biopsies were taken, and a CT scan was ordered for staging. Circumferential thickening of the cecum and ascending colon walls and two hepatic secondary lesions were confirmed, measuring 40mm and 58mm respectively, and, while multiple nonspecific lung nodules, calcified lung nodules and a 25mm-wide femoral neck lesion were also found, it is still uncertain whether they are related to the primary tumor. Laboratory findings showed elevated inflammatory markers, slightly elevated carcinoembryonic antigen levels (9.04 ng/ml), while the CA19-9 levels were not detectable. **Discussions :** Due to its particular nature, this case raises several imposing questions. How can we prevent further cases of appendix cancer from reaching such lengths? What type of treatment should you opt for, given its heterogenous and multiple origins? Appendectomy and chemotherapy may be performed in cases of localized tumors without metastases. In our patient's case, depending on histopathological examination, treatment may vary including cytoreductive surgery and hyperthermic intraperitoneal chemoperfusion in the case of mucinous neoplasms. Adenocarcinomas and goblet-cell adenocarcinomas often require right hemicolectomy. Small neuroendocrine tumors are managed with appendectomy, but right hemicolectomy is advised, if there's a high risk of lymphatic spread. **Conclusions:** This case exemplifies the importance of comprehensive evaluation in patients with atypical gastrointestinal symptoms, since they may be the main manifestations of an underlying malignant condition. A thorough personalized treatment strategy is imperative to optimize the outcome due to the rarity of this neoplasia. Also, the advanced staging of this cancer is an example of screening programs failure and underlines the importance of educating patients to seek medical advice as early as possible.

Keywords: Appendix cancer, Secondary lesions, Treatment

BILE DUCT STRICTURES – A FINE LINE BETWEEN BENIGN AND MALIGNANT. COMPLICATIONS IN THEIR RAREST FORM: A CASE REPORT

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Introduction: Biliary epithelial cells possess the capacity to respond to aggressions in multiple ways, resulting in atypical changes such as hyperplasia or the development of biliary neoplasms. A personalized combination of clinical, biochemical, and histological techniques is often needed because benign biliary strictures, despite their non-malignant nature, can mimic malignancies. **Case Report:** This case presents a 76-year-old female patient, transferred from another center in April 2023, complaining of epigastric pain, jaundice, nausea, and vomiting. A previous magnetic resonance cholangiopancreatography (MRCP) detected a 9mm common bile duct (CBD) stricture, which required biopsy and three endoscopic retrograde cholangiopancreatography (ERCP) procedures using plastic stents in April, August (when the patient experienced jaundice and grade I acute cholangitis) and October 2023. The histopathological examinations (HPE) showed no malignancy, and a follow-up endoscopic ultrasound (EUS) revealed an enlarged stricture (17/12mm) and two lymphadenopathies with no signs of malignancy following an EUS-guided fine-needle aspiration. In February 2024, an ERCP and a cholangioscopy were performed to diagnose the nature of the biliary stricture. Biopsies were taken and the biliary stent was removed due to diagnosis of inflammatory CBD stricture. Following the removal of the stent, the patient accused abdominal pain and jaundice, with laboratory findings of sepsis, cholestasis, and hepatic cytolysis. Therefore, another ERCP stent placement was imperative, while the bile culture returned positive for Enterococcus faecium. An abdominal CT revealed an exceptionally rare complication of cholangioscopy: two hepatic hematomas (130/100mm & 52/23 mm). The patient did well with supportive treatment and was discharged after 10 days. **Discussions :** This case exemplifies the well documented benefits of ERCP, while also underlining the hardships that may occur even to the most experienced endoscopists. Cholangioscopy and EUS are the preferred modality to establish a diagnosis of biliary stricture malignancy. Should you opt for ERCP and cholangioscopy? Do their benefits outweigh the risks? Our patient suffered an impressive case of hepatic hematomas, with only 61 cases being documented in literature as of 2020. Therefore, debate is still very much present, but its contribution to the evolution of medical practice cannot be denied. **Conclusions:** Despite the advancement in radiological techniques when it comes to a differential diagnosis between benign and malignant biliary strictures, bile duct biopsy and fine needle aspiration still uphold their effectiveness. However, considering their low sensitivity, there is a need for a comprehensive medical strategy that includes clinical, laboratory and histopathological data since no single modality is sufficient for a certain differentiation.

Keywords: Cholangioscopy, Biliary strictures, Hematoma, Differential diagnosis

PANCREATIC PSEUDOCYSTS – REVOLUTIONARY TREATMENTS FACING ONGOING HARDSHIPS: A CASE REPORT

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Introduction: Pancreatic pseudocysts (PPCs) have been a topic of debate among surgeons, gastroenterologists, and radiologists regarding their etiology, evolution, and treatment. Often associated with acute or chronic pancreatitis, these accumulations of fluid located in the tissues surrounding the pancreas are sometimes partially or completely encapsulated within the pancreatic tissue itself, thus presenting challenging management. **Case Report:** A 55-year-old female patient presented in October 2023 with epigastric pain and nausea. The patient, known to have type 2 diabetes mellitus and class 2 obesity, underwent a cholecystectomy one year prior and was monitored for a PPC, a complication of a severe acute biliary necrotizing pancreatitis episode. On CT examination, the cyst measured 19/13cm and the images showed significant atrophy of the pancreatic parenchyma and splenic vein thrombosis with collateral blood flow. Multiple ultrasound (US) and endoscopic ultrasound (EUS) examinations were conducted, indicating the enlargement of the PPC and raising the suspicion of a Wirsung duct rupture. Magnetic resonance cholangiopancreatography (MRCP) ruled out any communication with the PPC, but the Wirsung duct was still stented during an endoscopic retrograde cholangiopancreatography (ERCP) procedure in December 2023. In January 2024, EUS-guided transmural drainage was performed using two plastic cysto-gastric

pigtail stents, improving the patient's condition. In March 2024, the patient returned for clinical assessment, reporting a weight loss of 10kg without any accompanying symptoms. The pancreatic duct plastic stent was removed. A follow-up CT revealed a significant decrease in the PPC's dimensions (4 cm). The patient was discharged with pigtail stents still in place. **Discussions :** This complex case exemplifies the challenges of treating PPCs due to their volatile and sometimes unpredictable nature. Therefore, many questions arise: When is the optimal time to use EUS and to remove the pigtail stents? Should one opt for a more conventional, surgical approach? Surgical drainage used to be the preferred method for draining PPCs. Thanks to advancements in endoscopic techniques, surgical drainage is now reserved for specific scenarios, such as recurrent PPCs, malignant cyst resection, or symptomatic PPCs that are challenging to access endoscopically. **Conclusions:** PPCs are intricate and difficult conditions, yet this case exemplifies the importance of thorough surveillance of PPCs due to their unforeseeable implications. An integrated multi-disciplinary team approach, involving multiple specialists, is crucial to identify the best treatment for each individual patient.

Keywords: Pancreatic pseudocyst, EUS drainage, ERCP

SURVIVING STREPTOCOCCUS PYOGENES SEPTIC SHOCK

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Introduction: 47.9 million cases of sepsis are reported annually worldwide, yet sepsis causes 11 million fatalities globally each year, accounting for over 20% of all deaths. Since the onset is non-specific, making a diagnosis without a proper history and physical examination can be difficult. **Case Report:** The following report presents the case of a 34 years-old woman with no significant medical history, who presented to the Emergency Room with severe diffuse abdominal pain, multiple diarrheic stools and fatigue with onset one day prior. Following the medical evaluation, investigations and symptomatic treatment, she refused the in-hospital admission. Six hours later, the patient returned with worsened symptoms. At readmission, BP was 60/25 mmHg, HR 140bpm, SpO2-78% in room air, Capillary refill time >6 seconds, RR-35/min. Initial hemodynamic stabilization was initiated, fluid resuscitation, vasopressor support, broad spectrum empiric antibiotherapy and supportive treatment. Blood tests revealed elevated CRP and Presepsyn levels, severe metabolic acidosis, leukocytosis, neutrophilia, lymphopenia, hypoalbuminemia and acute kidney injury, all pointing towards severe sepsis. Native abdominal CT examination showed free fluid in the peritoneal cavity, with no organ lesions. The multidisciplinary team of emergency physicians and surgeons decided for an emergent exploratory laparotomy. Despite the invasive and rapid treatment, her condition worsened and she sustained a cardiac arrest through PEA, with ROSC after 4 minutes. After hemodynamic stabilization, the patient was taken to the operating room. Blood cultures and peritoneal fluid cultures revealed Streptococcus Pyogenes as a causatory agent. The patient spent the next 10 days on life support with supportive and antibiotic treatment, sustaining another 10 episodes of cardiac arrest with positive response to resuscitation procedures. Being hemodynamically and respiratory stable, she was extubated and is currently recovering. **Discussions :** The current case shows the importance of early recognition, diagnosis and treatment of sepsis and the life-threatening complications that may occur. A potentially fatal situation resulted from the patient's uncooperative behavior, which made proper diagnosis and early intervention difficult. **Conclusions:** Sepsis is a life-threatening medical emergency which can occur in patients of all ages. Severe consequences and even death may result from delayed diagnosis and treatment. The significance of doctor-patient communication is further highlighted by this case.

Keywords: sepsis, septic shock, Streptococcus Pyogenes, acute surgical abdomen

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THE MIND FINDS ITS WAY OUT

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Introduction: Schizophrenia remains one of the most challenging pathologies in psychiatry. Among positive symptoms, hallucinations are by far most impressive. The visual hallucinations involve perceiving images or objects that do not exist in reality, occurring without any external stimuli and they are contributing to the

manifestation of the psychotic symptoms of the illness. These types of hallucinations can be part of organic conditions like Charles Bonnet syndrome. This phenomenon predominantly affects the elderly, who are at a higher risk of developing eye conditions that affect vision, such as glaucoma. A particular case of glaucoma is represented by the congenital glaucoma that is a rare genetic ocular disorder affecting children at birth. It is characterized by abnormally high intraocular pressures leading to extremely affected visual capacity. Eye conditions that impair vision can lead to hallucinations as a brain adaptation. **Case Report:** We present a 56-year-old male patient clinically diagnosed with congenital glaucoma at 4 months of age which allowed the patient to only distinguish shadows for most of his life. He has also been diagnosed with paranoid schizophrenia at the age of 19 and a personality with pronounced impulsive-explosive traits. His first psychotic episode persisted for almost a year. He reported visualizing his brother attempting to harm him with a knife, that being the reason for his extremely agressive attitude. Blood tests and imaging studies did not reveal any abnormalities, except for occipital atrophy typically associated with visual impairments. Two years ago, he also developed diabetes which affected his vision more through peripheral retinopathy. This resulted in the disappearance of visual hallucinations. His following episodes were mostly expressed by delusional thinking and cognitive impairment. Currently, symptoms include disorganized thinking, narrowed logical concepts, apathy, and occasional auditory hallucinations. Over time, treatment itself posed challenges, as the patient developed a prolactinoma due to the antipsychotic medication, exacerbating their overall condition. **Discussions :** This case highlights that the mind is capable of generating sensory experiences even in the absence of physiological organic sensory input. It invites us to reflect on the notion that the relationship between an organ's structure and disease processes isn't a straightforward mathematical rule. It emphasizes the complexity and variability in the manifestation of mental diseases. **Conclusions:** Understanding mental disorders goes beyond simple equations and requires a nuanced appreciation of biology and medicine. Further research is needed to develop more effective treatments for this challenging condition.

Keywords: schizophrenia, eye conditions, congenital glaucoma, visual hallucinations

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LITERATURE REVIEW ON CORTISOL LEVEL IN ALCOHOL ADDICTION

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Introduction: Alcohol use disorders (AUDs) are a significant public health concern globally, with a high prevalence in North America. Craving and relapse are core features of AUDs, yet their precise neurobiological underpinnings remain elusive. While traditional neurobiological research has predominantly focused on the mesocortical dopaminergic reward pathways in AUD development, recent attention has shifted towards the involvement of hypothalamic stress regulation systems. Acute and chronic alcohol exposure has been linked to alterations in the hypothalamic- pituitary-adrenal (HPA) axis, sympathetic adrenal medullary (SAM) system, and hypothalamic-pituitary-gonadal (HPG) axis, leading to neuroendocrine dysregulation. These alterations may contribute to craving, progression of AUDs, and increased risk of relapse. **Case Report:** A prospective study investigated cortisol concentrations and stress- coping styles in 46 alcohol-dependent patients during detoxification and 1 year following discharge from treatment. Results revealed a positive correlation between negative stress-coping styles and higher cortisol levels in plasma and cerebrospinal fluid (CSF) after withdrawal. Abstainers after 1 year exhibited lower cortisol levels in CSF compared to relapsers, suggesting an association between HPA axis functioning and long-term abstinence in detoxified alcoholics. **Discussions :** Preclinical studies indicate that acute alcohol intake activates neurosecretory cells in the hypothalamus, leading to the release of corticotropin-releasing factor (CRF), adrenocorticotropic hormone (ACTH), and glucocorticoids. Elevated cortisol, ACTH, and norepinephrine levels have been historically associated with acute alcohol intake in humans, although responses may vary based on factors such as dose, family history of alcoholism, and acute stress levels. Chronic alcohol exposure induces systemic dysregulation of stress regulation pathways, potentially contributing to neuroendocrine tolerance and increased risk of relapse. Additionally, acute and chronic alcohol exposure influences the HPG axis, although the precise mechanisms remain unclear. **Conclusions:** The literature suggests that alcohol-induced alterations in hypothalamic stress regulation systems may play a crucial role in craving, AUD development, and relapse. Pharmacological interventions targeting these systems may hold promise in mitigating the development and progression of AUDs. Further research is needed to elucidate the complex interplay between alcohol consumption, stress regulation pathways, and AUD pathology.

Keywords: Alcohol use disorder, Cortisol, hypothalamic-pituitary-adrenal axis, stress regulation

DIAGNOSTIC APPROACH IN REFRACTORY ANEMIA: A PEDIATRIC CASE REPORT

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Introduction: Iron-deficiency anemia is a prevalent hematological condition in children, characterized by low hemoglobin levels often caused by inadequate iron intake or blood loss. However, there are cases where anemia persists despite adequate iron therapy, being classified as iron-refractory feriprival anemia.The objective of this case report is to highlight the crucial role of a rigorous diagnostic approach in the management of refractory iron-deficiency anemia in children, focusing on identifying the underlying cause. **Case Report:** We present the case of a 10-year-old boy diagnosed with autism spectrum disorder and iron deficiency anemia for approximately 2 years, who underwent oral iron therapy without any improvement. The patient presents with severe normochromic, normocytic anemia, elevated ferritin levels, as well as increased inflammatory markers (ESR, C-reactive protein). Suspicion of malabsorption arises, as the patient was tested negative for Helicobacter pylori infection and celiac disease, but elevated calprotectin levels were discovered. Subsequent findings raise suspicion of an inflammatory bowel disease. Also, antinuclear antibodies (ANA) were tested and found to be at the upper limit of normal. Following this, the patient was scheduled for a colonoscopy; however, prior to the procedure, a test for Clostridium difficile was conducted, yielding a positive result. **Discussions :** These findings led to the suspicion of an inflammatory bowel disease, potentially underlying the refractory iron-deficiency anemia in this patient. The importance of a meticulous diagnostic approach is highlighted, focusing on identifying the underlying cause to ensure appropriate management and prevent potential complications. **Conclusions:** This case exemplifies the critical role of meticulous diagnostic investigations in elucidating the complex etiology of refractory iron-deficiency anemia in pediatric patients. Despite initial therapeutic efforts targeting iron deficiency, the persistent anemia prompted a comprehensive diagnostic workup, revealing potential underlying factors such as malabsorption and inflammatory bowel disease.

Keywords: Refractory anemia, Diagnostic approach, Clostridium difficile, Inflammatory disease

INVESTIGATING THE SAFETY AND EFFICACY OF ANTIEPILEPTIC DRUGS: DRUG-DRUG INTERACTIONS IN A PATIENT WITH MULTIPLE COMORBIDITIES

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Introduction: Antiepileptic drugs (AED) are constituted of a group of drugs which are particularly susceptible to interactions with other medications. On one hand, older AEDs can lead to an alteration in the serum concentration of AEDs and other drug classes like anticoagulants, oral contraceptives, antidepressants and antipsychotics. On the other hand, antidepressants, antipsychotics and other enzyme inhibitors may raise serum concentrations of AEDs, while enzyme induction, decreased absorption or excretion may lower them. Amongst the five most common antiepileptic medications is Carbamazepine, which is recognized as one of the oldest antiepileptic drugs still in use since the 1960s and is frequently encountered in a hospital setting. By maintaining voltage-gated sodium channel stability, Carbamazepine lowers neuronal excitability and prevents the brain from producing aberrant electrical activity. Furthermore, it is known to activate the hepatic cytochrome P450 (CYP) enzyme system, specifically CYP3A4. **Case Report:** A 61-year-old male patient with a medical history of thrombolyzed right-sided Sylvian ischemic stroke, resulting in left-sided paralysis and hemiplegia, presents to the emergency department. The patient exhibits recurrent secondary generalized tonic-clonic seizures. Additionally, he is diagnosed with grade II hypertension, chronic ischemic heart disease, New York Heart Association (NYHA) Class III/IV heart failure, a history of myocardial infarction, grade I aortic regurgitation, grade I/II mitral regurgitation, and hepatolysis syndrome. His pharmacological management includes Carbamazepine, Metoprolol, Dapagliflozin, Sacubitril/Valsartan, Acetylsalicylic Acid, Rivaroxaban and Atorvastatin. **Discussions :** Coadministration of Rivaroxaban with strong CYP450-3A4 inducers such as Carbamazepine may result in a substantial reduction in Rivaroxaban plasma concentrations because of the increased metabolization. When a strong CYP450-3A4 inducer is administered, the mean Rivaroxaban peak plasma concentration and system exposure drop respectively and its pharmacodynamic effects also diminish at the same time. Furthermore, it leads to the decreased effectiveness of Rivaroxaban in preventing thromboembolic events. The identical concern occurs in case of the coadministration of

Atorvastatin and Carbamazepine. Once more acting like a potent CYP4503A4 inducer, Carbamazepine may decrease the plasma concentrations of Atorvastatin and its active metabolites resulting in reduced lipid-lowering effects. Fortunately, the other cardiovascular medications are not metabolized by CYP450 3A4 and thus does not have any influence on interactions with the AED. **Conclusions:** For the treatment of Epilepsy in these patients with multiple comorbidities, AEDs like Levetiracetam offer a safer choice from a pharmacological point of view by limiting drug-drug interactions. Because it does not interfere with CYP450 3A4 enzymes, hence has a lower impact on the concomitant medications.

Keywords: Epilepsy, Antiepileptic drugs, Drug-drug interactions

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BIOLOGIC THERAPY FOR ULCERATIVE COLITIS: CERTIFIED SUCCESS OR FURTHER HASSLE?

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Introduction: Inflammatory bowel disease (IBD) is a chronic idiopathic inflammation involving the gastrointestinal tract. Its two main components are ulcerative colitis (UC) and Crohn disease (CD). The immunological pathogenic substrate interacts with the microbiota and environmental factors in genetically susceptible individuals, with a peak incidence in patients aged 25-35. Lesions in UC only involve the colon, usually the left side, with continuous inflammation limited to the mucosa. Associated extraintestinal manifestations such as arthropathies, erythema nodosum or cholangitis are not uncommon. **Case Report:** We present the case of a 27-year-old woman who was diagnosed in 2020 with left sided ulcerative colitis and is on biologic therapy with an anti TNF alpha agent (Infliximab) since 2023. This patient comes into our clinic having lost 5-6 kg of weight in the previous month, 2-3 bloody stools a day and spontaneous rectal bleeding. Additionally we found pretibial lesions, oral cavity erosions and knee discomfort. Her medical history reveals multiple Clostridium difficile infections in 2022 treated with different combinations of Vancomycin and Metronidazole. **Discussions :** When managing an IBD patient, the current guidelines agree that "step up therapy" is preferred to "step down therapy". First line agents used for inducing remission include 5 -ASA drugs and corticosteroid medication. Due to clinical progression treatment with the immunomodulator Azathioprine is started following the eradication of Clostridium difficile. In March 2023, erythema nodosum, joint damage, clinical decline, and fecal calprotectin levels of 731 mcg/g led to the introduction of anti TNF alpha biologic therapy. Our patient returns a year later with a deteriorated clinical presentation, higher inflammatory markers (CRP 3.15 mg/Dl, ESR 164mm/h) and fecal calprotectin values of 1680 mcg/g. We conducted stool tests to rule out the potential causes of infectious colitis, and every test produced a negative result. To assess the extent of the colitis we performed a colonoscopy that described continuous colonic lesions, from the caecum to the rectum, congested, friable mucosa exhibiting bleeding upon air insufflation, multiple erosions and a few inflammatory polyps. After increasing corticosteroid doses and managing to improve the general state, the decision to intensify the biologic treatment is considered, to induce remission. **Conclusions:** The significance of this case lies in the detrimental evolution despite vigorous therapies, without development of antibodies against Infliximab. The burden this disease imposes especially among young people who have to shape their lives around their illness is something to remember when encountering such cases.

Keywords: IBD, Ulcerative colitis, Infliximab, Clostridium difficile

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MANAGEMENT OF A CLINICAL CASE OF PREECLAMPSIA IN THE TERTIARY PERINATAL CENTER

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Introduction: Hypertensive disorders in pregnancy are a relevant medical and social problem that can have consequences for both, the mother and the fetus. According to the World Health Organization (WHO), preeclampsia is one of the most serious complications, affecting approximately 2-8% of pregnancies worldwide. **Case Report:** Patient X., 26 years old, second ongoing pregnancy, 37-38 weeks of gestational (w.g.), presented

herself at the Emergency Unit of Tertiary Perinatal Center, Chisinau, Republic of Moldova (RM) with the complains: fatigue, persisting occipital headache for 2-3 days, along with high blood pressure (BP) 165/100 mmHg. Information gathered via clinical case monitoring, through diligent examination of the medical record, and by a comprehensive review of the literature. **Discussions :** Patient X., 26 years old, admitted with complaints: fatigue, persisting occipital headache for 2-3 days, along with high BP 165/100 mmHg. Obstetric history revealed the history of cesarian section (C-section), due to preeclampsia, associated with premature rupture of the amniotic sac at 39 w.g. Ultrasound exam revealed a placentomegaly at 36 w.g. in the current pregnancy. The patient, hemodynamically stable, with a respiratory rate of 17 breaths per minute, a pulse rate of 88 beats per minute, and BP initially measured at 170/110 mmHg, which subsequently decreased to 150/100 mmHg over 2 hours, without changes in the pulse rate. Palpation of the uterus revealed an ovoid shape and normal tone. The fetus was in the cephalic presentation. Fetal heart rate was ~146 beats/min, clear, rhythmic. The pelvic exam revealed the biologically unprepared birth canal. Traces of protein in urine. The diagnosis was established: Pregnancy 37-38 w.g. Rh negative without isoimmunization. History of C-section. Pregnancy induced hypertension. Antihypertensive treatment was administered according to the guidelines (methyldopa, nifedipine, metoprolol). Despite the treatment, BP values remain elevated (165-150 /100-90 mmHg) for the next 2 days with periodic occipital headaches. Ultrasound of the fetus showed blood flow centralization, also cardiotocographic changes were determined. In support of the preeclampsia diagnosis update, the C-section was recommended along with magnesium therapy. A female fetus was delivered, 3000 grams, Apgar score 7/8. The post-operative period was uncomplicated. **Conclusions:** Comprehensive understanding and management of hypertensive disorders in pregnancy is crucial for preventive measures to minimize maternal and/or fetal risks. Therefore, handling the appropriate medication, deciding a delivery method, and timing, along with optimal postpartum management are essential.

Keywords: hypertensive disorders in pregnancy, pregnancy induced hypertension, preeclampsia, fetus blood flow centralization process

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MULTIDISCIPLINARY APPROACH IN THE DIAGNOSIS OF BIRT-HOGG-DUBÉ SYNDROME

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Introduction: Birt-Hogg-Dubé syndrome (BHD) is a rare autosomal dominant disorder caused by mutations in the Folliculin gene, which is a tumor suppressing gene. As such, this disorder predisposes to fibrofolliculomas, lung cysts and spontaneous pneumothorax and an increased risk of developing kidney tumors. **Case Report:** A 33 year old woman presented to the Emergency Room with dyspnoea, acute chest pain, tachycardia and cyanosis. Emergency Xray revealed pneumothorax and further Computer Thomography confirms the diagnosis of bilateral paraseptal and centrolobular emphysema and a basal, large, infected lung cyst. There is no family history of similar disease. She was transferred to the pneumology ward, where genetic testing was recommended. After the analysis of 8 genes associated with hereditary predisposition for lung disease using NGS, a pathological mutation of FLCN gene was found: c.30del, p.(Cys11Alafs*44) . This result led us to the final diagnosis of BHD Syndrome. **Discussions :** BHD is characterized by high phenotypic heterogeneity, so disease severity can vary significantly among family members and between families. From the 240 pathogenic variants discovered until now, 150 are associated with only a propensity for spontaneous pneumothorax and no other pathogeny. In the case of lung cysts, they are usually bilateral, multifocal and asymptomatic, patients usually discovering them, as in this case, only in the eventuality of a spontaneous pneumothorax. Our patient received treatment for the pulmonary issues and made a full recovery. Further imagistic testing of the lungs and kidneys was recommended, as the patient is 7 times more likely to develop a renal cancer, usually bilateral and multifocal, that can onset as early as 46 years old. The patient was also referred to a dermatologist for more in depth explorations, as she is in the decade of life where skin lesions associated with BHD syndrome may develop, such as: fibrofolliculomas, trichodiscomas and acrochordons. Lastly, as this is a dominantly transmitted autosomal disorder, which means it may manifest in half of the future descendants, the patient was referred to a genetic counsellor. **Conclusions:** BHD syndrome is a rare disease usually present in more than one member of a family, as it is transmitted dominantly autosomal. However, it also has a high phenotypic heterogeneity and can manifest itself in any number of symptoms involving the lungs, kidneys and skin. While this may be the result of a de novo mutations, we cannot certify this until the family undergoes a similar genetic testing.

Keywords: Birt-Hogg-Dubé Syndrome, spontaneous pneumothorax, kidney tumors, genetic testing

THE INTRICATE MAZE OF TRAUMA, ADDICTION, BORDERLINE PERSONALITY DISORDER, AND ITS ACCOMPANYING COMPLEXITIES – A CASE REPORT

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Introduction: Borderline personality disorder (BPD) is a cluster B personality disorder beginning by early adulthood. Epidemiological data suggests that the prevalence of this condition is 1.6% in the general community and 20% among psychiatric inpatients. BPD is linked with genetic factors and traumatic childhood experiences and is frequently accompanied by other psychiatric comorbidities. **Case Report:** A 22-year-old male patient voluntarily presented to the emergency department of an in-patient psychiatry clinic for a distinct period of persistently elevated mood, episodes of impulsivity, self-injurious behaviour to his left forearm and decreased need for sleep while maintaining high energy levels throughout the day. A psychiatric exam was conducted and it revealed: distractibility, pressure of speech, elevated affective mood with moments of despair and hopelessness, paroxysmal anxiety, irritability, low frustration tolerance, increased emotional reactivity, fear of abandonment, marked impulsivity, self-harm by cutting. Moreover, the patient reported suicidal ideation and multiple past suicide attempts. His social history included growing up in foster care and past history of severe childhood abuse. According to DSM-5 criteria, the patient was diagnosed with BPD, post-traumatic stress disorder (PTSD), attention-deficit/hyperactivity disorder (ADHD), substance use disorder, and bipolar disorder (BD). A multidisciplinary treatment approach was initiated. The patient is subject to numerous antidepressants and antipsychotics, including Aripiprazole, whose side-effects, dyskinesia and tremors, are managed with Trihexyphenidyl, an anticholinergic drug. The patient also attends psychotherapy sessions and Narcotics Anonymous meetings. **Discussions :** This case was particularly complex because of cause and symptom overlap, making the precise diagnosis of the patient's psychiatric conditions challenging. For instance, scientific literature has indicated that childhood abuse is correlated with BPD, PTSD, ADHD and BD. Moreover, suicidal behaviour is a diagnostic criterion for both BPD and a major depressive episode associated with BD. To accurately determine the patient's conditions, The Structured Clinical Interview for DSM (SCID) and DSM-5 criteria were used. Additionally, the severity of manic and depressive symptoms was assessed using the Young Mania Rating Scale and Beck Depression Inventory. This elaborate diagnostic process was relevant for treatment, as pharmacological options are especially indicated in cases of comorbidity between BPD and other psychiatric disorders, as well as severe BD. **Conclusions:** Childhood abuse can trigger the debut of BPD, which in turn can be associated with multiple interconnected psychiatric disorders. The past history of abuse, addiction issues along with the range of pathologies make this a complex case in need of multivalent treatment options.

Keywords: Borderline personality disorder, Childhood abuse, Comorbidities, Addiction

CASE REPORT: EARLY-ONSET CARDIAC INVOLVEMENT IN BECKER MUSCULAR DYSTROPHY

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Introduction: Becker Muscular Dystrophy (BMD) is a X-linked recessive disorder concerning a mutation in the dystrophin gene. This defective gene, located at Xp21.2, comprises 79 exons. Damage to the sarcolemma results in the outflow of creatin kinase (CK) and the influx of calcium, leading to several complications such as: cardiomyopathy, cardiac arrhythmia, respiratory insufficiency, kidney failure, loss of ambulation and cognitive impairment. Cardiac involvement (CI) is highly prevalent, most often manifesting in the third decade of life. It can range from being asymptomatic to fatal arrhythmias. However, the prognosis is favourable with early recognition and treatment. **Case Report:** We report the case of a 14-year-old male diagnosed with Becker Muscular Dystrophy (BMD) following the identification of deletions in exons 48-49. The patient was physically active and showed no signs of muscle weakness. He presented to the emergency department (ED) with precordial pain that radiated to the left arm. ECG findings indicated a lower-wall ST elevation myocardial infarction. The troponin levels showed a dynamic increase. Troponin was elevated at 2 and 6 hours after presentation along with transaminases.

Hypocalcaemia was observed, accompanied by an extended QT interval. These laboratory findings, including high concentrations of creatine kinase (CK), CK-MB, lactate dehydrogenase, Troponin T, and N-terminal prohormone of brain natriuretic peptide, persisted over the following days, although symptoms subsided within a few days. Coronarography revealed no lesions. Neurological examination identified a few simple motor tics. The treatment included physical rest, a special diet, ivabradine, aspirin, and antioxidants, with a follow-up assessment planned for one month later. **Discussions :** Cardiac involvement (CI) is known to be associated with BMD, typically emerging later in life, with the pathoanatomical background being replacement of dysfunctional cardiomyocytes and disruption of the conduction systyem by fibrous tissur or fat. There is no established correlation between CI and skeletal muscle manifestations or between CI severity and number deleted exons. **Conclusions:** This case highlights that CI can manifest early, presenting with significant severity and not necessarily correlating with extensive muscle damage or number of deleted axons. Furthermore, CI can appear across a spectrum of pathologies, potentially preceding skeletal muscle symptoms, and is amenable to complete recovery with early detection and appropriate treatment.

Keywords: Becker Muscular Dystrophy, Cardiac Involvement, STEMI presentation, Early-onset

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UNILATERAL MACULAR OEDEMA IN STARGARDT MACULAR DYSTROPHY- A RARE CASE REPORT

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Introduction: Stargardt's disease is a rare autosomal recessive macular dystrophy with an incidence of 1:8000-10000 caused by mutations in the ABCA4 gene, which normally is responsible for encoding a protein involved in the visual cycle. This mutation leads to fatty material buildup on the macula, which can have the following consequences: central vision loss, sensitivity to light and occasionally color blindness. **Case Report:** A 44-year-old woman arrived at the Opthalmology Clinic in February 2024 complaining about decreased visual acuity in her right eye. She is known with moderate myopia. On examination, her best-corrected visual acuity was 0.2 oculus dexter (OD) and 0.05 oculus sinister (OS). Intraocular pressure measured 23 mmHg oculus uterque (OU). On dilated fundus exam, the vitreous was clear OU. Both disc were tilted associated with temporal staphyloma. The peripheral retinas OU presented spiculiform-like retinal pigment epithelium (RPE) hyperpigmentation. A chorio-retinal atrophic lesion of approximately 2 papillary diameter was visible in the central macula. Fundus autofluorescence OU revealed multiple mixted lesions of hypo and hyperautofluorescence in posterior pole extending outside the peripheral arcades. In her OS a central wedge-shaped area of hypoautofluorescence appeared. On macular optical coherence tomography (OCT) examination, retinal thickness in the central 1 mm ETDRS circle was 671 µm OD and 156 µm OS with the disappereance of outer retinal layers. Based on the ocular fundus appereance, autofluorescence and OCT findings, diagnosis is compatible with OU: Stargardt disease OD: Macular oedema, OS: Atrophic lesion. Patient was started on oral acetazolamide 250 mg three times a day together with aspacardine. After only a week, a decrease of central foveal thickness was exibited to 294 µm OD. **Discussions :** Usually, patients with Stargardt's disease present macular atrophy and the interesting part of this case is the macular oedema that appeared, which is uncommon for the disease. The macular oedema in this specific case can be explained by fluid accumulation in the subretinal space caused by break-down of the RPE or Müller cell disfunction. **Conclusions:** The patient was diagnosed based on clinical observations, even though a genetic test is required to confirm the pathology. OD showed oedema, which in scientific articles is very rarely described correlated with Stargardt's disease. This association is relevant for further research on this topic.

Keywords: Stargardt’s disease, macular oedema, macular atrophy, ABCA4 gene

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PNEUMOSEPSIS IN A YOUNG PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Introduction: Systemic lupus erythematosus (SLE) is characterized by immune system dysfunction and is clinically heterogeneous, exhibiting variable and multisystemic symptoms. Pneumonia is a common clinical entity,

especially of concern in immunocompromised individuals who have worse outcomes than seen in the general population. **Case Report:** A 29-year-old man diagnosed with Systemic Lupus Erythematosus and Hereditary Angioedema was admitted to the nephrology service, due to anemia and acute renal failure, which was confirmed to be Class IV Lupus Nephritis. After treatment with pulse steroids, he was discharged with oral prednisolone and mycophenolate mofetil (MMF). The next day, he presented to the rheumatology outpatient clinic with a deteriorating general condition, fever, and cough, and was subsequently admitted to the ward. He was transferred to the intensive care unit (ICU) the following day due to respiratory distress, hypotension, and the need for positive inotropes and vasopressors. The infectious diseases consultant recommended meropenem 2g IV q12h, vancomycin 1g IV q24h, a PCR examination for viral respiratory tract agents, chest radiography, blood culture, sputum culture and smear examination, complete urinalysis, and urine culture examination. High-resolution CT of the lungs showed nodular densities tending to consolidate in both lungs, more pronounced in the lower lobes, suggestive of infection. A day later, due to persistent fever, rales on lung examination, and increased CRP and lactate levels, amikacin 7.5 mg/kg IV was added to the antibiotic therapy for suspected pneumosepsis. The antibiogram of peripheral blood culture revealed Pseudomonas aeruginosa susceptible to meropenem, tobramycin, and amikacin; intermediate to imipenem and piperacillin/tazobactam; resistant to levofloxacin, cefepime, and ceftazidime. The patient showed improvement and was transferred to the rheumatology service continuing his treatment. Intravenous antibiotic therapy was completed with meropenem, vancomycin, and amikacin. In the follow-up, there was improvement in acute phase reactants, renal function tests, and clinical status. Control tests showed no microorganisms in the smear and the patient was discharged. **Discussions :** Immunocompromised patients such as SLE patients are vulnerable to opportunistic infections. To avoid the high morbidity and mortality associated with pneumonia in such patients, it must be diagnosed and treated early on in the disease process. **Conclusions:** Although pneumonia is rare in patients diagnosed with lupus (1-10%), it is a clinical condition with mortality. Broad-spectrum antibiotics and immunosuppressive treatment should be started earlier, and necessary precautions should be taken to avoid other complications and close follow-up should be done.

Keywords: systemic lupus erythematosus (SLE), pneumosepsis, infections, immunosuppressed

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GLYCOGEN STORAGE DISEASE TYPE IA AND AUTISM: A CASE REPORT

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Introduction: Glycogen Storage Disease Type Ia (GSDIa) is characterized by glycogen's inability to convert into glucose, leading to fasting hypoglycemia and abnormal biochemical profiles. It results from biallelic pathogenic variants in the G6PC1-gene, causing a deficiency of glucose-6-phosphatase-enzyme. Commonly diagnosed in children, symptoms of hypoglycemia, doll-like face, short-stature, and hepatomegaly are visible. Autism Spectrum Disorders (ASD) involve neuronal issues, leading to social deficits and repetitive behaviors, affecting about 1% of the global population. **Case Report:** We present the case of a 15-year-old male with GSDIa diagnosed at 10 months and atypical autism at 3 years old, admitted to the Emergency Department of Akdeniz-University, Antalya, Turkey, for the inability to feed and a total of six recurrent episodes of vomiting, diarrhea, and hypoglycemia (54 mg/dl). Multiple past hospitalizations for hypoglycemia were disclosed. Following the initial evaluation, the patient was diagnosed with hypoglycemia, dehydration, and gastroenteritis. Before admission, he followed the recommended GSDIa diet: 2x servings of soup, 2x servings of PediaSure formula (2x130 cc), and 4x servings of raw starch, 1 hour after each meal. Uncontrolled emesis and prolonged fasting contribute to unfortunate hypoglycemic levels, worsening the patient's general and mental state, hence the crucial management of hypoglycemia. In-hospital treatment includes IV Dextrose, Pantoprazole, and Granisetron. Fluid therapy continues with a 5% dextrose + 4.5% NaCl solution. Glycemia is monitored, and medications are administered as needed. The Pediatric Metabolism Department advises ongoing monitoring of glycemia, dietary control, and specialized education to promote the patient's development. Gradual reduction and cessation of dextrose fluid therapy are required, with discharge criteria including 12-hour stability in blood sugar, tolerance of nutrition, and no fluid intake. **Discussions :** GSDs involve abnormal glycogen metabolism, leading to its accumulation in tissues, especially the liver and muscles. Dietary therapies for GSDIa include frequent daytime feedings with specific energy distribution: 65%carbs, 10-15%protein, and 25%fat, along with high-carbohydrate gastric supplements (uncooked starch) overnight. Hypoglycemia in autistic individuals can exacerbate symptoms and pose challenges in behavior and cognition. Caregivers must closely monitor blood glucose levels and promptly address hypoglycemic episodes to mitigate negative effects. **Conclusions:** The co-occurrence of GSDIa and autism is rare, with specific incidence

rates unknown. GSDIa is a rare genetic disorder itself, affecting roughly 1 in 100,000 to 1 in 200,000 births. However, the exact incidence of individuals with both GSDIa and autism remains unclear due to diagnostic challenges. Early and accurate diagnosis is vital for optimal outcomes and complication prevention.

Keywords: Glycogen Storage Disease Type 1, Hypoglycemia, Treatment

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SURGICAL APPROACH IN AN ULCERATIVE COLITIS PATIENT UNRESPONSIVE TO MAXIMAL THERAPY

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Introduction: Ulcerative colitis (UC) is an inflammatory bowel disease (IBD) characterized by chronic mucosal inflammation of the rectum, colon, and cecum. Symptomatically it is characterized by bloody diarrhea and fecal urgency. Long-term risk for colon cancer is elevated, being one of the most common causes of mortality in IBD, together with infections and surgery complications. A colonoscopy is required for definitive diagnosis, and laboratory findings such as inflammatory markers and fecal calprotectin are useful to assess the disease severity. Medical treatment must be individualized, following a step-up pattern with the goal of achieving remission. Surgery can be considered if medical therapy is unsuccessful. **Case Report:** A 26 year-old man is diagnosed with ulcerative pancolitis in March 2022, receiving as initial treatment 5-ASA and Azathioprine without success. In October 2022 he presents in the Gastroenterology clinic with fecal calprotectin 6000mcg/g, elevated inflammatory markers, and a positive result for Clostridium Difficile A+B toxins. One month later he is admitted in the department with similar laboratory values. Endoscopy is performed showing an edematous, hemorrhagic, friable mucosa with inflammatory polyps throughout the entire colon. He is diagnosed with a severe active pancolitis, MAYO score 10 and given as treatment corticosteroids, 5-ASA, and Adalimumab. Clinical remission is achieved for 7 months. In June 2023 the patient presents 4 semisolid stools with rectorrhagia, Hgb 10.4mg/dl, fecal calprotectin 7329mcg/g and same endoscopic aspect. Previous treatment is modified with Infliximab, with good response for one month, after which fecal calprotectin elevates to 7000mcg/g. **Discussions :** Long-standing UC leads to complications such as toxic megacolon, colonic perforation, infections and increased colorectal cancer risk, the last one directly correlated with the duration, extension, and presence of inflammatory pseudopolyps. Long-term management of the disease includes colorectal cancer screening, performed by a colonoscopy with biopsies every 1-5 years. However, given the condition of our patient, having pseudopolyps throughout the whole colon, dysplasia cannot be properly assessed. Moreover, medically refractory UC represents one of the main indications for surgical treatment. This includes steroid-dependency and immunomodulator or biologic-refractory disease. The absolute contraindication for surgical treatment of UC is anal sphincter dysfunction and suspected Crohn's disease. The procedures of choice are proctocolectomy with an ileal pouch-anal anastomosis or total proctocolectomy with end-ileostomy **Conclusions:** Considering the patient's age, lack of comorbidities, treatment refractoriness, endoscopic findings, and the risk of complications from uncontrolled disease activity, surgical intervention should be considered.

Keywords: Ulcerative colitis, Refractory UC, Surgical management

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UNVEILING THE UNCOMMON: A CASE REPORT OF MALE BREAST CARCINOMA

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Introduction: Male breast carcinoma presents a rare and often overlooked aspect of oncology, accounting for only 1% of all breast cancer cases. The infrequency of pathology, combined with the common association of breast cancer primarily with females, leads to delayed diagnosis, management challenges and unfavorable prognosis. **Case Report:** We report the case of a 64-year-old male with no significant risk factors, diagnosed with invasive NST (no specific type) left breast carcinoma cT4bN0M0, stage IIIB, luminal B HER-2 negative subtype. The patient presented in 2019 with a palpable mass in the left nipple area, accompanied by skin retraction. The ultrasound revealed an ulcerated irregular mass measuring 2x3 cm, with adherence to the pectoral muscle. Ultrasound-guided tru-cut biopsy confirmed the diagnosis of invasive NST breast carcinoma cT4bN0M0, stage IIIB, HER-2 negative, estrogen receptor (ER=100%) and progesterone receptor (PR=55%) positive, with a low Ki-67 proliferation

index(10%). Neoadjuvant chemotherapy was initiated, consisting of 4 cycles of Epirubicin plus Cyclophosphamide and 4 cycles of Paclitaxel. Following successful neoadjuvant chemotherapy, the patient underwent a left-sided mastectomy with sentinel lymph node biopsy. Histopathological examination established the presence of a residual invasive ductal breast carcinoma stage ypT2ypN0(3sn), with the same molecular profile. Surgical margins were clear and none of the three dissected lymph nodes showed evidence of metastasis. Adjuvant endocrine therapy with Letrozol 2.5 mg was initiated shortly after surgery. Since 2019, the patient has consistently adhered to Letrozole therapy, showing excellent tolerance to the treatment. **Discussions :** The patient's tumor, classified as invasive ductal NST, HR positive and HER-2 negative, represents a common subtype of male breast carcinoma (90%). Neoadjuvant chemotherapy plays an important role in the management of breast cancer, leading to downstaging and better results. Adjuvant endocrine therapy is a cornerstone in all patients diagnosed with HR positive breast cancer. Despite historically breast cancer in male patients has a poor outcome, the favorable prognostic indicators noted in this case, including clear surgical margins, negative lymph nodes, and a low Ki-67 proliferation index, seem to confer a survival advantage. Regular follow-up examinations, imaging studies and tumor marker monitoring will continue to be essential for tracking disease progression and detecting potential recurrence. **Conclusions:** This case highlights several key aspects of male breast carcinoma management and serves to raise awareness about breast cancer among males. Although rare, male breast carcinoma can exhibit similar clinical features to breast cancer in women, making early detection and patient adherence to therapy crucial for optimal outcomes.

Keywords: Male breast carcinoma, Neoadjuvant chemotherapy, Mastectomy, Adjuvant endocrine therapy

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DOWN SYNDROME AND CARDIAC MALFORMATIONS IN PREMATURE NEWBORNS:CLINICAL APPROACH AND MANAGEMENT

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Introduction: Down syndrome also known as Trisomy 21 is one of the most common genetic abnormalities in newborns. Patients with this syndrome have a characteristic phenotypic appearance and may associate with a series of visceral malformations, among which are heart malformations. **Case Report:** In this case presentation we will talk about the management of a newborn with down syndrome who also has several heart malformations, highlighting the method of diagnosis and treatment. The newborn is suspected since the prenatal period of Trisomy 21 associated with heart malformations and is born at 33-34 weeks by C-section. At birth the APGAR score was 6/1 minute and 8/5 minutes, weight 2300g, LG: 47cm and PC:29.5. Further, a physical examination was performed where the characteristic face of down phenotype, muscle hypotonia, syndactyle and clitoris hypertrophy were highlighted. During the examination of the cardiovascular and respiratory system, well-beaten bilateral cardiac noises , vesicular murmur, HR: 160-170 b/min, RR: 58-64 breath/minute and O2 sturatia less than 75% at 10 minutes postpartum were identified.During the echocardiographic examination, the diagnosis of multiplerol heart malformations was confirmed, among which the coarctation of the aorta and common atrioventricular duct was found. Treatment with prostaglandin E1 to maintain the permeability of the arterial duct and avoid circulatory collapse associated with aortic coarctation began with the initial dose of 0.01 mg/kg/min. Heart rate, oxygen sturation, vital parameters were followed to guide subsequent changes in treatment. Due to the improvement in general condition, increased oxygen saturation to 93-95% and absence of side effects of treatment, the dose of prostaglandin E1 gradually decreased to 0.002 mg/kg/min. After 3 week of treatment, the newborn was transferred to the cardiovascular surgery department for surgical correction. **Discussions :** The manager of such a case includes, besides a neonatologist, a multidisciplinary team consisting of pediatric cardiologist, geneticist, cardiovascular surgeon.Long-term patient management relies heavily on the support and education of parents. **Conclusions:** Early diagnosis in combination with proper treatment and care for patients with down syndrome and associated heart malformations leads to the favorable development . A very important aspect for optimizing the care of these children and improving their long-term prognosis is the continuation of research and improvement of clinical practices

Keywords: prostaglandin, Down phenotype, common atrioventricular duct, heart malformations

URINARY CATHETERIZATION IN THE COVID-19 INTENSIVE CARE UNIT

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Introduction: Urinary catheterization, a widespread medical procedure used in intensive care medicine, can lead to a variety of life-threatening complications if proper antiseptic techniques are not implemented, especially among the elderly population, where comorbidities are frequent. This can prove to be the entry point for multiple microorganisms, causing a urinary tract infection (UTI) that can, in some cases, lead to sepsis. **Case Report:** The aim of our presentation is to assess the implications of Foley catheters use in the appearance of sepsis. We have analyzed patients admitted to the intensive care unit (ICU) of the County Clinical Hospital Targu Mures between January 2021 and December 2022, and included the obtained information in a database for further assessment. Out of a total of 194 urinary-catheterized patients, we have selected 70 that spent at least three days in the Covid-ICU ward and underwent the necessary blood analysis to be included in our retrospective study. Of these, the majority (68.57%) were male and only 31.43% were female; the mean age of the admitted patients was 73, with the youngest subject being 37 years old; more than half (68.57%) had at least one positive Covid-19 test; 14.29% of patients included in the study were permanently catheterized prior to admission due to various urinary dysfunctions; following proper investigations we have discovered that 15.71% had a urine culture indicative for UTI and 15.71% had a blood culture suggestive for bacteremia, but only 4.29% of all patients presented the same bacteria in both; 52.86% of blood cultures were inconclusive due to prior antibiotic use or improper antiseptic techniques, leading to contamination; the mortality among the studied group was 77.14%. **Discussions :** Even though not all cultures confirm the presence of bacteremia, clinical signs and symptoms of sepsis should not be overlooked. High mortality in the studied group cannot be attributed only to urinary catheter-transmitted infection due to the presence of multiple comorbidities and active SARS-CoV 2 infections. **Conclusions:** Hemocultures can be a powerful diagnostic tool if the procedure is done in accordance with European guidelines and no prior antibacterial drugs have been administered. Urinary catheterization is known to be one of the leading causes of sepsis in ICU patients and proper sterile technique is vital in minimizing the risk of associated complications.This work was supported by the George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Târgu Mureș Research Grant number 170/1/09.01.2024"

Keywords: Sepsis, Urinary Catheterization, Covid-19, Hemoculture

OCULAR COMPLICATIONS OF OBSTRUCTIVE SLEEP APNEA: A LITERATURE REVIEW

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Introduction: Obstructive sleep apnea syndrome (OSA) is characterized by intermittent upper airway collapse during sleep in obese patients, being a severely underdiagnosed multiorgan disorder. Although the impact of OSA on cardiovascular morbidity is well documented, ocular complications remain an uncertain topic. Eye diseases, taking into account the important cause of the reduction of the quality of life and disability, are a current modern problem of the society. **Case Report:** OSA has been identified as a significant risk factor for various eye disorders, including glaucoma, non-arteritic anterior ischemic optic neuropathy (NAION), central serous chorioretinopathy (CSC), retinal vein occlusion, keratoconus, and diabetic retinopathy. The prevalence of these conditions among OSA patients is documented to be considerably higher than in the general population. While some studies indicate a link between OSA and these eye conditions, other research contradicts this association. Ocular diseases can develop in the presence of conditions that reduce ocular blood flow independently of OSA, such as obesity, diabetes, and hypertension. Nevertheless, positive outcomes have been observed with CPAP treatment in patients with glaucoma, NAION, CSC, and diabetic retinopathy. **Discussions :** The pathogenic mechanisms involved in the deterioration of the eye are uncertain, however, studies suggest that ophthalmological lesions may occur indirectly, secondary to systemic cardiovascular and metabolic damage, but also through direct pathways. The eyeball is heavily vascularized by the basin of the internal carotid artery. Imbalance of vasoactive substances, oxidative stress, inflammatory cytokine activity and disruption of the blood-retinal barrier will corrupt the integrity of the optic

nerve and retinal layers. Intermittent hypoxia will induce hyperactivity of the sympathetic nervous system with the onset of vascular autonomic dysfunction. These phenomena can alter cerebral and ocular circulation, especially during the night, with deregulation of ocular perfusion and increased intraocular pressure. **Conclusions:** While the connection between OSAS and eye disease remains subject to debate, recognizing the potential for this association can assist clinicians in delivering holistic care to their patients. Encouraging increased vigilance for ocular symptoms in individuals with sleep apnea is crucial to prevent vision-related complications. Further research should delve into the underlying pathological mechanisms that predispose sleep apnea patients to ocular conditions. Advanced noninvasive technologies like optical coherence tomography and optical coherence tomography angiography hold promise in enhancing our understanding of retinal structures and elucidating the ophthalmic implications of OSA.

Keywords: Obstructive Sleep Apnea Syndrome, Eye complications, Eye disease

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REPORT OF TWO CASES OF MYXOMAS WITH CARDIAC AND FOREARM PRESENTATION

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Introduction: Myxomas are benign tumors developed from mesenchymal tissue, which can have different localisations. Cardiac myxoma most often occurrs as a solitary, sporadic, pedunculated mass in the left atrium. Intramuscular myxoma appears as a gelatinous lesion resembling fetal umbilical cord, often deep located within muscles of the extremities. **Case Report:** The first case was about a 16 year-old female, underwent surgery for a left atrial tumoral mass which was suggestive for a cardiac myxoma while the second case was about a 64 year-old female who presented for a surgical consult reporting swelling in the right forearm. After surgical excision, both specimens were sent for histopathological evaluation. Microscopic evaluation revealed for the first case a well-defined mass with characteristic lepidic cell proliferation, immunohistochemically positive for calretinin and vimentin, and myxoid matrix, alcian blue positive. The second case findings consisted of a myxoid matrix with low bland spindle cells cellularity, CD34 positive. **Discussions :** Although the morphological appearance of these two entities may show similarities, the immunohistochemical profile only partially overlaps, cardiac lepidic cells are always Calretinin positive, and may show CD34 expression, while the immunohistochemical marker CD34 is more specific in diagnosing intramuscular myxomas. Even if most cases are sporadic lesions, a small percentage might be associated with familial syndromes such as Carney complex, which is characterized by multiple cardiac and extracardiac myxomas, skin pigmentation, and endocrine tumors. **Conclusions:** Myxomas are often difficult to diagnose, especially those with an extracardiac localisations and final diagnosis should rely on histopathological and immunohistochemical evaluation of the specimens. Most extracardiac myxomas fortunately have an admirable prognosis and outcome once diagnosed, unlike cardiac myxomas which require a more prompt approach due to possible risky complications.

Keywords: myxomas,, cardiac,, intramuscular,, benign tumors

RENAL MANIFESTATIONS OF TUBEROUS SCLEROSIS COMPLEX - A CASE REPORT

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Introduction: Tuberous sclerosis complex (TSC) is a rare genetic disease, affecting TSC1 or TSC2 gene, that manifests as a multisystem disorder defined by the development of numerous benign tumors, called angiomyolipomas (AMLs). Due to TSC, mutations in the genes cause permanent activation of the mTOR pathway, leading to tumorogenicity, cellular proliferation distributed around blood vessels and lastly is mostly manifested in hemorrage. Renal complications due to TSC can lead to chronic kidney disease (CKD) and, in severe cases, end-stage renal disease (ESRD), requiring renal replacement therapy. **Case Report:** A 35-year-old female patient known with CKD and a 10-year history of TSC, presented to Nephrology department for monthly check-up with lack of appetite, asthenia, nausea, vomiting, fatigue suggesting uremic syndrome. In 2013 an abdominal CT showed a right renal AML, giant left AML with retroperitoneal hemorrhage, indicating a mandatory left total nephrectomy. Renal AMLs can lead to complications such as local growth, mechanical pressure that is imposed on the renal parenchyma, and bleeding. In 2018, the patient was treated with Everolimus (immunosuppressant) with right kidney AML not growing further. The presence of AML on a solitary kidney, hypertension and the reduced

number of nephrons precipitated the onset and progression of CKD. She developed proteinuria, possible glomerulosclerosis due to hyperfiltration on the remaining nephrons. Given all the facts, ESRD was established and a vascular access via an AV fistula was created. She was initiated in chronic hemodialysis because of severe azotemia associated with clinical symptoms. **Discussions :** Population-based studies found that 48-to-80 percent of patients, between ages 15-30, with TSC have kidney complications with the presence of AMLs and progression towards renal insufficiency. In patients undergoing maintenance hemodialysis, the mortality rate and morbidity burden are markedky elevated, accompanied by a diminished quality of life. **Conclusions:** Due to its infrequency, this case highlights the need to spread further awareness. Vigilant surveillance and therapeutic intervention targeting these renal manifestations are imperative to mitigate the risk of CKD in TSC patients.

Keywords: Tuberous Sclerosis Complex, Angiomyolipoma, End Stage Renal Disease, Hemodialysis

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EXPLORING THE ROLE OF EMERGENCY DEPARTMENT PROTOCOLS IN CRITICAL PATIENT MANAGEMENT

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Introduction: Prompt recognition and immediate management of sepsis and septic shock are pivotal for patients' outcomes. Given that the Emergency Department serves as the primary point of medical intervention for septic patients, emergency physicians are critical in the initial stages of patient care. Emergency care involves fast initial diagnosis, prompt resuscitation, and timely initiation of antibiotic therapy. **Case Report:** We report the case of a 71-year-old man with a history of aorto-bifemoral bypass (6 months prior); he presents in the emergency room with an altered general condition, complaining of hypogastric pain with one-week onset, hematuria (24 hours ago), pain in the lumbar region and fever. The initial clinical and preclinical evaluation of the patient revealed important information about his altered state, changes in the blood count, leukocytosis with neutrophilia, metabolic acidosis, and hemodynamic and electrolyte instability. The signs and symptoms of the patient outline the clinical picture of shock. Immediate patient management involved hemodynamic stabilization, antipyretics, analgesics, broad-spectrum antibiotics administration, and further investigations. The imaging results reveal a large, superinfected left retroperitoneal hematoma as a result of a rupture of an aneurysm of the infrarenal abdominal aorta and superinfection. It has been decided that the patient should be admitted to the vascular surgery department for specialized surgical treatment. The case shows that a quick, well-coordinated, and practical approach can significantly affect treatment outcomes and the patient's quality of life. **Discussions :** The literature suggests that the susceptible phase for bacterial colonization of shunts may not be limited to the operative procedure, as conventionally assumed, but may persist throughout the postoperative wound healing phase. The particularity of the case is given by the relatively long, asymptomatic period following the surgical intervention and the symptoms at presentation: abdominal pain and hematuria. **Conclusions:** This case report illustrates the importance of early diagnosis and prompt treatment and the efficiency of a well-coordinated emergency medical team and multidisciplinary collaboration. Thus, in light of this case, we are reminded that every moment counts and that medical professionals' commitment and expertise can work wonders for those in need.

Keywords: emergency, sepsis, hematoma, shock

NEONATAL SEIZURES – A LONG-TERM CHALLENGE FOR BOTH PHYSICIAN AND PATIENT

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Introduction: Neonatal seizures are one of the most frequent neurological emergencies associating usually a poor long-term outcome. These seizures are usually provoked by acute brain insult like hypoxic-ischemic encephalopathy, intracranial hemorrhage, acute metabolic disorders, ischemic stroke, or infections of the central nervous system. Nevertheless, early onset epilepsy is also possible in rare cases. **Case Report:** We report the case of a 6-month-old male infant presenting with severe generalized hypotonia. The patient's history pointed out that at the age of 1 month he presented focal left palpebral myoclonic seizures for which he received phenobarbital for three days with favorable evolution and with no pathological signs of the brain MRI and normal brain

electroencephalography. The family history revealed that the mother was diagnosed with ovarian cancer before pregnancy, and the father and both paternal grandparents suffering by autoimmune thyroiditis. At that time the laboratory tests showed a vitamin B 12 deficiency for which he received oral supplementation of B12 until the age of 6 months. The actual neurological consult showed cranial and facial dysmorphism, generalized hypotonia, with axial predominance, as well as reduced amplitude and frequency of the active movements, but with normal reflexes, and psychical developmental retardation. The laboratory tests at the age of 6 months underlined the persistence of vitamin B12 deficiency, without changes in the muscular enzymes levels and thyroid function tests. The neurologist recommended genetic testing, which revealed the presence of a mutation in the STXBP1 gene. **Discussions :** STXBP1 gene pathogenic variants are most commonly related to neurological disorders such as epileptic encephalopathy refractory to treatment, motor developmental and psychic delay, as well as autistic spectrum disorders. The importance of the genetic diagnosis relies on the possibility to predict possible future symptoms if the positive genetic test is associated with a syndrome. Thus, the physician might not only increase parents' awareness regarding the long-term evolution of their child, but also preempt if possible future complications previously described in other similar cases. Moreover, the child diagnosed with a pathogenic genetic mutation will have the possibility to be included in clinical trials whenever these are available. **Conclusions:** Vitamin B12 deficiency might be a major cause of seizures especially during infancy. Nevertheless, peculiar cases impose a thorough search of other severe causes of seizures. The close neurological monitoring of seizures during infancy is extremely important for the long-term patient's outcome.

Keywords: seizures, newborn, genetic testing

A COMPLEX CASE OF INFECTIVE ENDOCARDITIS

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Introduction: Infective endocarditis is the infection of the endovascular surface of the heart, which typically involves one or more of the heart valves, but can also occur on mural endocardium of the atriums and ventricles, large thoracic vessels or intracardiac foreign bodies such as pacemaker leads or prosthetic valves. **Case Report:** A 79-year-old patient presents with asthenia, fatigue, decreased exercise tolerance, fever relieved by Paracetamol, and palpitations. From the medical history, we note two previous episodes of infective endocarditis (IE): in 2022 involving the tricuspid and pulmonary valves with coagulase-negative Staphylococcus (CoNS), and in 2018 IE of the mitral valve with negative blood cultures. Given the patient's known febrile status with a history of IE, there is a high risk of developing a new episode. Investigations in this regard reveal infective endocarditis of the tricuspid valve with positive blood cultures for CoNS resistant to penicillin. Treatment with Gentamicin and Oxacillin is initiated. Thoracic echocardiography detects severe mitral regurgitation with degenerative changes of the posterior leaflet secondary to previous IE, severe tricuspid regurgitation, and a high-suggestive aspect of tricuspid valve endocarditis. Managing this patient is a therapeutic challenge due to his multiple comorbidities. He has a history of resected gastric neoplasm with gastrojejunal anastomosis (2005), multiple episodes of upper gastrointestinal bleeding due to anastomotic ulcer, secondary anemia, angiectasias, and Dieulafoy lesions, bilateral lower limb deep vein thrombosis with secondary segmental pulmonary microembolisms, and pre-renal acute kidney injury. The patient's digestive and renal pathologies pose a relative contraindication to anticoagulation and contrast administration for coronary angiography. Considering this and the favorable evolution of endocarditis under antibiotic treatment, it is decided in collaboration with the cardiac surgeon to postpone the mitral valve replacement intervention. **Discussions :** The particularity of this case is represented by infective endocarditis on the native valve in a patient without risk factors such as valve replacement or intravenous drug abuse. Additionally, in the etiology of infective endocarditis, the most commonly implicated pathogens are Streptococci (50-70%), Staphylococci (25%), Enterococci (10%), and among Staphylococci, the majority are coagulase-positive, with only 1-3% of native valve endocarditis being due to coagulase-negative Staphylococci. **Conclusions:** This case underscores the complexity of managing infective endocarditis, particularly in patients with multiple comorbidities. It emphasizes the significance of early recognition, targeted antibiotic treatment, and personalized therapeutic approaches adapted to the patient's specific clinical condition.

Keywords: recurrent infective endocarditis, native valve endocarditis, coagulase negative staphylococcus

HYPOTRICHOSIS AND JUVENILE MACULAR DYSTROPHY: 4 YEAR FOLLOW-UP

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Introduction: Hypotrichosis and juvenile macular dystrophy (HJMD) is a rare congenital autosomal recessive disorder caused by a CDH3 gene mutation localized in Chromosome 16, responsible for P-Cadherin codification. P-Cadherin is a calcium-binding protein expressed in the retinal pigment epithelium (RPE) and in the hair follicle. The abnormal or absent presentation of this protein causes an increase in the regressing and catagen phases of the hair growth cycle and a progressive macular degeneration, due to the loss of the RPE integrity. Therefore, the disease is characterized by primary hypotrichosis and early visual impairment. The aim of this case report is to analyse the evolution of the disorder and expose how the affected retinal structures have progressed throughout the 4 years passed since the patient was diagnosed of HJMD. **Case Report:** A 20-year-old female patient referred to the Ophthalmology Clinic - Targu Mures in 2020 presenting visual impairment, colour vision alteration and visual field reduction. She reported rutinary ophthalmological appointments since she was 8 years old due to the progressive evolution of visual loss. Additional signs were short, sparse, and limited hair growth of the scalp region since birth, whereas the hair condition of the rest of body was normal. The assessment of visual acuity in the last 4 years revealed further decrease of visual acuity. In addition, OCT scans showed continuous decrease in thickness of photoreceptor layer, atrophy of the RPE, elevation of the foveolar region and epiretinal membranes in both eyes, together with a macular hole in the left eye. Nevertheless, the internal retinal layer integrity was preserved. Finally, genetic testing was conducted to the patient and her family in order to confirm the diagnosis. The parents were found to be consanguineous and heterozygous for the CDH3 mutation. On the other hand, both the patient and her sister appeared to have a homozygous mutation. **Discussions :** Vitrectomy and epiretinal membrane peeling is considered for visual acuity preservation, however, improvement is not expected due to the already existent impairment of the photoreceptors layer. A pharmacological curative treatment is currently undefined. **Conclusions:** In this report, we highlighted the presence of epiretinal membrane, macular hole and the asymmetric impairment of vision, which are extremely rare or previously undescribed in the scientific literature of HJMD.

Keywords: Hypotrichosis and juvenile macular dystrophy, Epiretinal membrane, Macular hole

FROM A DECREASE IN VISION TO STROKE - A SEVERE CASE OF HYPERTENSIVE RETINOPATHY

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Introduction: Hypertensive retinopathy represents retinal vascular damage due to chronic high blood pressure (BP) and it is linked to an increased risk of stroke. Left unchecked, uncontrolled hypertension can lead to a spectrum of retinal manifestations, ranging from subtle changes to more severe symptomatology, such as papilledema. **Case Report:** A 49-year-old man presented to the ophthalmology clinic complaining of a decrease in vision, mild headaches and light dizziness. His smoking exposure was 10 pack-years. Moreover, his mother had arterial hypertension and died of a stroke. After a fundoscopic examination, he was further referred to a cardiologist, due to the gravity of the findings. This consisted of arteriolar narrowing, accentuation of light reflex, arteriovenous crossing changes, retinal hemorrhages and exudates and the most severe one, papilledema in both eyes. Five days later the patient presented to the emergency department accusing dyspnea, severe headache, dizziness, and paresthesia in his right hand fingers. His blood pressure was 240/100 and a CT scan was performed, which indicated a transient ischemic attack in the left carotid territory. His LDL cholesterol level was 151 mg/dl. He was discharged 4 days later with medication for his newly diagnosed stage III arterial hypertension. The patient presented 4 months later to the ophthalmologist for a check-up and received intravitreal injection treatment with anti-VEGF medication, aflibercept. His vision improved and the retinal changes seen on fundoscopy were ameliorated. **Discussions :** A simple ophthalmological appointment for decreased vision can diagnose a severe underlying condition: stage III hypertension. The gradual loss of vision was the only true symptom the

patient experienced and reaching stage 4 of retinopathy is rather uncommon. The retina is the only place in the human body where the microcirculation can be directly visualized, the fundoscopic exam being mandatory in any hypertensive patient. The fact that the patient suffered a stroke a few days after the ophthalmologic consult indicates the advanced stage of his condition. A BP measurement at the ophthalmologist could have made the patient present to the cardiologist earlier and avoid the stroke. This highlights the importance of a BP measurement at every doctor visit, regardless of his speciality. **Conclusions:** Hypertensive retinopathy serves as a vital clinical marker for the systemic vascular effects of high blood pressure, offering insight into the microcirculation of the brain. This case also wants to underline the importance of treatment of the underlying condition, hypertension, which can significantly improve the damage to the retina.

Keywords: Retinopathy, Arterial Hypertension, Transient Ischemic Attack

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NEUROLEPTIC INDUCED PSEUDOHYPONATREMIA - CASE REPORT

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Introduction: A 72-year-old patient presented to the emergency department with bronchopneumonia, hypertrophic cardiomyopathy, heart failure, acute kidney injury (AKI), urinary tract infection, senile dementia, seizures, and severe hyponatremia. After investigations, the patient was admitted to the Internal Medicine 1 department due to severe hyponatremia and sepsis, originating from a urinary Pseudomonas infection and pulmonary Acinetobacter in remission. **Case Report:** During hospitalization, vital signs and laboratory parameters were closely monitored to aid diagnosis, particularly noting the following values: On 12.03.2024, the patient exhibited low levels of Na at 105 mEq/L (normal range: 136-145), glucose at 56 mg/dl (normal range: 70-105), lactate at 3.1 mmol/L (normal range: 0-1.3), and an elevated INR at 1.38 (normal range: 0.80-1.20), alongside leukocytosis, thrombocytosis, and mild normochromic-microcytic anemia. Subsequent days showed improvement, with Na levels increasing to 130.40 mmol/L on 15.03.2024 and stabilizing around 127 mmol/L on 18.03.2024. By 22.03.2024, Na levels remained stable at 133 mmol/L. Additionally, other parameters such as chloride at 95.95 mmol/L (normal range: 98-107), ferritin at 603 ng/ml (normal range: 30-400), proBNP at 2838 pg/ml (normal range: 0-879), fibrinogen at 684 mg/dl (normal range: 200-400), ESR at 62 mm/h (normal range: 1-15), and CRP at 53.21 mg/L (normal range: <5) were monitored, indicating the patient's progress and response to treatment. Antibiotic therapy according to antibiogram, nutritional support, hydroelectrolyte balance management, and the patient's regular medications (Carbamazepine, Tiapridal) were administered during hospitalization. **Discussions :** The patient's overall condition remained relatively stable, with stable cardio-respiratory and hemodynamic parameters, cooperativeness, and temporal-spatial disorientation. Consequently, it raises the question of whether the hyponatremia observed was a result of the underlying septic condition or the neuroleptic treatment previously administered. **Conclusions:** The emergence of unexplained hyponatremia during the patient's neuroleptic treatment may result from the drugs' impact on hormonal balance. Neuroleptics can trigger excessive release of antidiuretic hormone (ADH), disrupting normal osmotic balance and leading to dilution of sodium in the blood, causing hyponatremia. This highlights the need to consider neuroleptics' pharmacological effects in managing electrolyte imbalances in complex medical cases.

Keywords: hyponatremia, sepsis, leukocytosis, neuroleptics

A RARE CASE OF MIDAORTIC SYNDROME IN A PATIENT WITH WILLIAMS SYNDROME

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Introduction: Williams syndrome (WS) is a rare multisystemic genetic disorder that affects approximately 1:7,500 to 20,000 newborns. It originates from the microdeletion of 25-27 genes on the chromosome 7q11.23, including the elastin gene (ELN). Parallelly, middle aortic syndrome (MAS) is a rare vascular condition affecting children and young adults, that accounts for 0.5-2% of all aortic stenosis cases. Characterized by either diffuse or segmental narrowing of the abdominal descending aorta, MAS can impinge upon the renal and visceral branches, causing

severe hypertension in the pediatric population. **Case Report:** A 5-month-old female, previously documented with prematurity, ventricular septal defect, moderate pulmonary supravalvular stenosis, supravalvular aortic stenosis and Williams syndrome, was presented for further imagistic scrutiny through thoraco-abdominal CT angiography, following a cardiological assessment at The Heart Institute Cluj. The infant was receiving beta-blockers. At admission, notable findings included agitation and irritability, stunted growth, distinctive craniofacial traits, ogival palate, occipital hemangioma, diminished tissue elasticity, respiratory distress, cardiac insufficiency classified as Ross II, respiratory rate (RR) of 74 rpm, heart rate (HR) of 155 bpm, a grade III systolic murmur, and right axial deviation observed on EKG. CT Angiography revealed thoracic and abdominal aortic stenosis alongside hypoplasia of the pulmonary trunk and its branches. Post-conservative treatment, the patient was discharged. At 10 months, rehospitalization in the ICU was necessitated due to RSV-induced acute bronchiolitis and subsequent acute respiratory failure. Despite initial management and ongoing beta-blocker therapy, the patient developed acute gastroenteritis attributed to rotavirus. Following this, an escalation in antihypertensive treatment was warranted due to detected cardiac insufficiency. The patient was eventually discharged after a remission of the acute conditions. **Discussions :** Cardiovascular anomalies impact approximately 80% of individuals with WS, predominantly presenting as supravalvular aortic stenosis and pulmonary stenosis. However, the condition can affect any artery. Notably, WS has been identified as the most frequent genetic precursor to midaortic syndrome. The presence of multiple vascular anomalies significantly escalates the risk of myocardial infarction, arrhythmias, and sudden cardiac death among these patients. **Conclusions:** It is imperative for individuals diagnosed with WS to undergo comprehensive disease evaluation and enduring follow-up to mitigate the risk of severe complications potentially triggered by seemingly minor infections. Patients with multiple vascular anomalies need extra medical attention and ongoing care for optimal health outcomes.

Keywords: Williams Syndrome, Middle Aortic Syndrome, Coarctation, Abdominal Aorta

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THE IMPORTANCE OF ACTIVE SURVEILLANCE IN DIFFERENTIATED THYROID CANCER – A CASE REPORT

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Introduction: Thyroid carcinoma is the most common type of endocrine cancer, with an increasing prevalence worldwide. Papillary thyroid carcinoma is the most common histological type. It usually has an indolent, slow progressing course, but there are some histological subtypes that can have a more aggressive evolution. Thus, it is important to have a well-established management algorithm for these cases. This case report aims to present the role of active surveillance in papillary thyroid carcinoma with indeterminate post therapeutic response. **Case Report:** We present the case of a 35-year-old male, who underwent a total thyroidectomy for a malignancy suspicious nodule of the right thyroid lobe, the histopathological result being papillary thyroid carcinoma with a 20% tall cell variant. After the surgery, the inadequately high serum thyroglobulin (TG) and the whole-body scan that were performed showed signs of remaining thyroid tissue, which lead to the recommendation of radioiodine ablation therapy. After two courses of radioiodine therapy his TG was still higher than optimal, needing further investigations. Thus, a PET-CT was done, showing no signs of recurrence or distant metastases. Having an indeterminate structural and biochemical response, it was decided to undergo active surveillance under suppressive treatment with levothyroxine. During the last two years in which he has been closely monitored, his TG has been decreasing, and he shows no signs of recurrent or metastatic disease. **Discussions :** In the previous years it was considered that an untreated recurrent disease is a progressive condition that invariably harms the patient. Thus, any sign of remnant or recurrent disease needed further treatment, either surgical or not. However, during the last years a new perspective was proposed, termed active surveillance. Most of the studies performed during this period of time suggest that only a minority of patients with indeterminate biochemical or structural response actually develop clinically significant disease and that an aggressive intervention can do more harm than good in these cases. Active surveillance can be used as a key tool in observing these cases and in ensuring a personalized approach for every patient. **Conclusions:** Active surveillance can be an important tool in early identifying a real recurrence and avoiding aggressive treatment in cases that have an indeterminate response after the initial treatment. Every patient should be treated individually, based on their periodically dosing of TG and ultrasound evaluation.

Keywords: thyroid cancer, active surveillance, therapeutic response, endocrine cancer

THE DECEPTIVE NATURE OF ANTRAL GASTRIC ULCERS IN ALCOHOLICS: A CASE OF BENIGN PATHOLOGY AMONG MALIGNANCY SUSPICION

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Introduction: Ulcers are localized lesions found in the gastrointestinal tract or on the skin, characterized by the loss of tissue integrity alongside inflammation. They result from various factors including compromised blood supply, elevated emotional stress, H. pylori infection, excessive acid production, or prolonged use of NSAIDs. Appearing as open sores or wounds, ulcers cause symptoms such as pain, bleeding, and discomfort. Research indicates a significant association between active H. pylori infection and duodenal/gastric ulcers, while alcohol consumption is less frequently identified as a primary cause. However, excessive alcohol intake can damage the stomach lining, leading to erosion and the formation of ulcerous lesions. This case involves a retired male who worked in an oil refinery and was admitted to the gastroenterology department with a suspected diagnosis of chronic hepatopathy. Subsequent findings revealed alcohol-induced gastric and duodenal ulcerations requiring further evaluation and management. **Case Report:** We present the case of a 59-year-old male who presented at the emergency room with compromised general condition caused by upper abdominal pain (epigastric area). He was admitted to the gastroenterology clinic for further investigations and treatment. Laboratory tests showed negativity for HBV and HCV, along with consistently elevated liver function tests (AST, ALT), high cholesterol levels, hyperlipidemia, thrombocytopenia, and portal hypertension, indicating liver damage. The detailed medical history highlighted a toxic work environment and chronic alcohol consumption, averaging 4-5 alcohol units/day over the past 30 years. Upper digestive endoscopy revealed ulcerative lesions in the duodenum and stomach, from which biopsies were subsequently taken to investigate the possibility of neoplasia. **Discussions :** The presence of ulcers in patients with chronic alcohol consumption requires careful attention due to the increased risk of neoplasia associated with prolonged ethanol exposure. Additionally, exposure to a toxic work environment may further increase the risk of malignancy. Antral cancers can be challenging to evaluate macroscopically during endoscopy due to their often extraluminal expansion. Fortunately, biopsy results for our patient indicated chronic inflammation without suspicious histology. **Conclusions:** This case highlights the unique interpretation of gastrointestinal ulcers in the patient, not caused by predisposing factors but rather by the consumption of pure alcohol, resulting in chronic liver damage. While the NHS suggests that alcohol consumption may exacerbate symptoms of preexisting stomach ulcers, the sequence of events leading to ulcer development remains unclear. It is uncertain whether the ulceration was caused by known determining factors or by excessive alcohol consumption compromising the integrity of the stomach and duodenal mucosal barriers.

Keywords: ulcers, alcohol, malignancy

ENDOGENOUS HYPERINSULINISM DUE TO A PANCREATIC TUMOR MANIFESTED AS SEVERE RECURRENT HYPOGLYCEMIA - A CASE REPORT

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Introduction: An important cause of recurrent hypoglycemia related to endogenous hyperinsulinism is represented by insulinoma, a rare tumor with a low incidence, impacting 1-4 individuals per million of the general population. The hallmark of this condition is an autonomous hypersecretion of insulin, which occurs independently of the normal glycemic control mechanisms. Typically, it results in non-specific neuroglycopenic symptoms and increased sympathoadrenal activity during the hypoglycemic episodes, posing a challenge in diagnosis. **Case Report:** This report describes the case of a 66-year-old female patient with recurrent episodes of hypoglycemia, accompanied by various comorbidities including chronic autoimmune thyroiditis, hypertension, dyslipidemia and grade 1 obesity. The patient had been experiencing recurrent episodes of malaise associated with low blood glucose levels (<40 mg/dL) since 2021, with occasional loss of consciousness due to severe hypoglycemia. Initially misdiagnosed as diabetes mellitus type 2, based on a flat oral glucose tolerance test curve, she was treated with Metformin, but discontinued treatment due to persistent symptomatic hypoglycemic episodes. Through meticulous dietary adaptations, the patient achieved control of her early-onset symptoms by unrestricted intake of glucose-rich

liquids and foods. Subsequently, the patient was diagnosed with endogenous hyperinsulinism (glucose level of 21 mg/dl during the fasting test, unsuppressed insulin and C-peptide). Abdominal MRI revealed the presence of a cephalic pancreatic nodule, later confirmed to be an insulinoma upon biopsy. The patient underwent surgical intervention for the removal of the tumor and symptomatic episodes improved thereafter. **Discussions :** The patient's condition illustrates a typical case of severe hyperinsulinism, that was diagnosed after several years of symptomatic evolution. The patient tolerated the hypoglycemic episodes unexpectedly well, explained by the chronic adaptation of the autonomic nervous system to low glucose levels. Ultimately, the patient was diagnosed with endogenous hyperinsulinism associated with a pancreatic tumor, which was successfully surgically removed. The case also highlights how the possibility of a deceptive appearance, such as a flat OGTT curve in this condition, is misleadingly implying the presence of diabetes mellitus. **Conclusions:** Increased awareness to symptoms of hypoglycemia should lead to a prompt evaluation for endogenous hyperinsulinism, which is attributed to a pancreatic tumor in the majority of cases. This condition, if unifocal and surgically accessible, as revealed in our case, can be effectively managed through surgical intervention.

Keywords: endogenous hyperinsulinism, insulinoma, hypoglycemia

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INTERSTITIAL LUNG DISEASE IN CONNECTIVE TISSUE DISORDERS: UNRAVELING PATHOGENIC MECHANISMS AND ASSESSING PULMONARY FUNCTIONS AND IMAGING

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Introduction: Connective tissue disorders (CTD) represent a group of systemic autoimmune diseases characterized by chronic inflammation. Besides the collagen structures affected frequently in the joints and skin, internal organs can be involved. Among these, interstitial lung disease (ILD) emerges as a critical determinant of morbidity and mortality necessitating a deeper understanding of its pathophysiological mechanisms, clinical presentation and possible progressive course to improve patient management. **Case Report:** This retrospective study examines 8 patients diagnosed with various connective tissue disorders over a period of 4 years between 2018 and 2022, including systemic sclerosis (SSC), rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), dermatomyositis (DM) and Sjögren syndrome (SS) who developed secondary ILD. Through detailed clinical evaluation, serological testing, pulmonary function tests (PFTs) and radiological imaging, we evaluate the disease course, response to therapy and outcomes over time, highlighting the heterogeneity of ILD presentations within collagenoses. **Discussions :** ILD pathogenesis involves complex immune mechanisms triggering pulmonary fibrosis and inflammation. Diagnostic challenges arise from the ILD's variable presentation, necessitating an extensive approach incorporating high-resolution computed tomography (HRCT) and PFTs. 4 patients did not start anti-fibrotic therapy and were put under observation. Their natural course of disease showed improvement on PFTS and imaging. Patients that showed pathognomonic honeycombing and extensive fibrosis on HRCT with a decrease of PFTs over time have started anti-fibrotic and immunosuppressive therapy. Management strategies, primarily antifibrotic therapy can have positive outcome on disease severity and progression. Our case series underscores the importance of early diagnosis and individualized treatment based on investigations and clinical presentation to mitigate disease progression and improve quality of life. **Conclusions:** CTD pose a significant risk for developing ILD. Clinical presentation heterogeneity, severity and rate of progression of ILD can be correlated with the underlying autoimmune disorder. Even if some cases of ILD can be mild with minimal changes on PFTs it is crucial to make an extensive evaluation in all patients presenting with CTD. Honeycombing pattern on HRCT may or may not be present in early disease. Absence of radiological abnormalities and normal PFTs do not exclude the diagnosis of ILD as a complication of CTD. The prognosis and outcome of ILD varies with associated comorbidities.

Keywords: Connective Tissue Disorders, Interstitial Lung Disease, Antifibrotic Therapy, Autoimmunity

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ASSESSMENT OF INFLAMMATORY STATUS IN INTERSTITIAL VERSUS BACTERIAL PNEUMONIA

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Introduction: Pneumonia in children is a major health problem, being a leading cause of morbidity and mortality in

children under 5 years old. Although pneumonia-related deaths occur predominantly in developing countries, the impact of this disease remains meaningful worldwide and has important consequences for both public health and the costs associated with specialized medical care. **Case Report:** A retrospective study was performed using data collected from 138 patients, aged between one month and 17 years old, admitted to the Pediatric Department I within the Târgu-Mureș Emergency County Hospital (01/01/2019-31/12/2023). The patients from our study were divided into 2 groups: the 1st group - 69 children with interstitial pneumonia and the 2nd group - 69 children with bacterial pneumonia. Inclusion criteria were represented by children admitted to the Pediatric Department presenting respiratory symptoms such as wheezing, cough, fever, rhinoreea. Exclusion criteria involved patients diagnosed with other infectious or non-infectious pathologies. Analyzed variables included age, gender, weight, diagnosis upon admission, CBC (complete blood count), levels of C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), neutrophil-to-lymphocyte ratio (NLR), as well as platelet-to-lymphocyte ratio (PLR), evolution and length of hospital stay. **Discussions :** The average age of the children from our study was 26 months, with an average weight of 11.7 kg. Younger patients were more frequently diagnosed with interstitial pneumonia ($p < 0.001$). Most of the patients included into our study were represented by boys (56.5%). The analysis and comparison of laboratory parameters revealed significantly higher values of PCR ($p<0,01$), ESR ($p<0,01$), leukocyte count ($p<0,01$), neutrophils ($p<0,01$), as well as NLR ($p<0,01$) and PLR ($p<0,01$) in patients with bacterial pneumonia. Patients diagnosed with interstitial pneumonia had significantly higher values of erythrocyte count ($p=0,02$), lymphocytes ($p<0,01$), eosinophils ($p<0,001$), and basophils ($p<0,01$). Patients diagnosed with bacterial pneumonia exhibited an average hospitalization length of 6 days (3 to 32 days), while in those with interstitial pneumonia the hospitalization was shorter: 4 days (1 to 9 days). **Conclusions:** Early determination of the NLR and PLR, both defining the subclinical inflammatory status, is essential for promptly diagnosing and preventing potential complications in pediatric pneumonia. Furthermore, acute phase reactants play an important role in screening and differential diagnosis between bacterial and interstitial pneumonia in children.

Keywords: Pneumonia, Pediatrics, Inflammatory markers, Acute phase reactants

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DEGLUTITION DISORDERS – ENT, GASTROENTEROLOGY, NEUROLOGY OR PSYCHIATRY? : A CASE REPORT

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Introduction: Dysphagia, the difficulty swallowing, is a symptom caused by a neuromuscular disorder or a mechanical obstruction. It is classified into two types: oropharyngeal dysphagia and esophageal dysphagia. Tracheoesophageal fistula (TEF) is usually seen in newborns because it is mostly congenital, but in adults, it can be caused by malignancy, infections, trauma, or it can be iatrogenic. Despite being a rare complication of malignancy, more than 50% of TEFs are caused by esophageal or lung cancer. **Case Report:** We present a 92-year-old male patient known with hiatal hernia, GERD, diverticulosis, operated descending colon neoplasm, and an anxiety disorder, presenting with dysphagia, choking, and mild dysphonia. The ENT local examination revealed pyriform sinus stasis and phonasthenia. Computerized tomography revealed a dense accumulation (approximately 60 H.U.) occupying nearly the entire left frontal sinus, as well as the left anterior ethmoidal cell, with a ballooned appearance and prominence within the sinus - similar aspect, a defect in the left lamina papyracea, thickening of the mucosa of the right anterior ethmoidal cells and right maxillary sinus, hypoplasia of the right sphenoidal hemisinus, no pathological changes at the pharyngo-laryngeal level, esophagus with a thicker wall in the upper third, and prevascular mediastinal adenopathies, pretracheal, in the aortopulmonary window, some with esophageal contact. The Barium Swallow revealed the tracheoesophageal fistula through barium sulfate solution leaking onto the tracheal wall. **Discussions :** After excluding any type of cervical or thoracic malignancy and any neurological etiology, considering the patient's age and personal pathological history, it was concluded that the chemotherapy that the patient received, together with GERD, could have caused the tracheoesophageal fistula. **Conclusions:** This report aims to raise the clinician's awareness to the tracheoesophageal fistula in adulthood not caused by cervical malignancy, yet considering TEF as a rare consequence of peptic esophagitis, secondary to GERD, and even more rarely following by chemotherapy.

Keywords: Tracheoesophageal Fistula, Chemotherapy, Dysphagia, Gastroesophageal Reflux

PREECLAMPSIA AND BEYOND: THE CLINICAL JOURNEY THROUGH ITS LONG-TERM IMPLICATIONS

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Introduction: Preeclampsia, a progressive multisystem disorder, is attributed to placental-induced generalized endothelial dysfunction and is distinguished by new-onset hypertension occurring after 20 weeks of gestation. In the long term, it increases susceptibility to hypertension, cardiovascular and kidney disease, and early mortality. **Case Report:** This report explores the clinical journey of a 30-year-old female patient who is referred for additional assessment, due to ongoing elevated blood pressure levels despite antihypertensive treatment, along with persistent proteinuria. The symptoms developed during two previous pregnancies with documented preeclampsia episodes despite no prior history of hypertension or renal pathology. Both pregnancies (3 years apart) exhibited similar patterns marked by the onset of severe hypertension and proteinuria exceeding 7.5g/24h, after 20 weeks of gestation, ultimately culminating in placental abruption. Despite normalization between pregnancies, proteinuria persisted following the second pregnancy, alongside uncontrolled blood pressure. Extensive biological examinations, encompassing infectious and immunological profiles, were conducted to investigate a potential subjacent glomerular etiology and secondary hypertension causes. Due to the occurrence of two miscarriage episodes, there was a strong suspicion of antiphospholipid syndrome, prompting testing for specific antibodies which returned negative and ultimately dismissed the suspicion. A renal biopsy was eventually performed, to identify the etiology of persistent proteinuria, uncovering nephroangisclerosis associated with long-term hypertension. Accordingly, the treatment integrated the combination of four antihypertensive classes alongside SGLT2 inhibitors. **Discussions :** While preeclampsia typically resolves with blood pressure restoration within three months and proteinuria within six months, the patient exhibited persistent symptoms for years thereafter. The literature documents that 15-20% of preeclampsia cases may be associated with a preexisting underlying renal pathology as it was essential to consider in this case. Therefore, a kidney biopsy was performed revealing nephroangiosclerosis associated with chronic hypertension, thus elucidating the etiology of persistent proteinuria. Moreover, accurate differentiation between preeclampsia and pre-existing chronic hypertension was crucial in this case due to distinct management and maternal prognoses. Underdiagnosis of pre-existing chronic hypertension is a concern, particularly because of initially low blood pressure levels in pregnancy and also due to preeclampsia overlap further complicating diagnosis in 25% of cases. Additionally, recent studies have underscored the profound influence of preeclampsia on cardiovascular health, revealing a 2-3 times higher risk of long-term hypertension in affected women compared to those with uncomplicated pregnancies. **Conclusions:** In this scenario, preeclampsia episodes emerged as significant predictors for subsequent long-term hypertension. Inadequately managed hypertension caused renal alterations over time, notably, nephroangiosclerosis underlying the persistent proteinuria.

Keywords: hypertension, preeclampsia, proteinuria, pregnancy

21-HYDROXYLASE DEFICIENCY: BLURRING THE LINE BETWEEN SALT-WASTING AND SIMPLE-VIRILIZING

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Introduction: Congenital adrenal hyperplasia (CAH) is a condition resulting from a deficiency in enzymes involved in the biosynthesis of steroid hormones in the adrenal cortex. Most cases of CAH are due to impaired 21-hydroxylase production, leading to insufficient cortisol and aldosterone synthesis. The classic form of CAH is subdivided into two types: salt-wasting and simple-virilizing. **Case Report:** A 2-year-old girl consulted the endocrinology department for reevaluation presenting ambiguous external genitalia. She was first diagnosed at 6 months with salt-wasting 21-hydroxylase-deficiency and was under treatment with hydrocortisone, fludrocortisone, and an additional salt intake of 1g/day. Upon clinical examination the patient had virilization (Prader stage II), increased 17- hydroxyprogesterone (91.3 ng/ml), androstenedione (1.77 ng/ml), and plasma renin (373.3 uUI/ml). She had also developed hypertension (130/90 mmHg). For this reason, the decision to cease fludrocortisone

administration was made. The evolution of the patient was good, the hypertension subsided after discontinuing fludrocortisone treatment (105/65 mmHg), the laboratory results showed good control of 17-hydroxyprogesterone and ACTH, as well as normal levels of electrolytes, corticoid, and mineralocorticoid hormones. The diagnosis was revised, and the enzyme deficiency was described as simple-virilizing. On further follow-ups at 3, 4 and 5 years of age, the patient's hormonal levels were well controlled and the blood pressure stayed within the normal range. **Discussions :** Our case highlights the fact that treatment for this particular genetic disease should be closely monitored and adjusted in accordance to the evolution of the disease to avoid unwanted side effects. The disease was at first identified and treated as a salt-wasting form and although the administration of mineralocorticoids is crucial in preventing adrenal crisis in infants with salt loss, prolonged administration of fludrocortisone was the likely cause of hypertension. This aligns with current literature which suggests that the classification of 21-hydroxylase deficiency as salt-wasting and simple-virilizing is slowly falling out of use as CAH shows a high variability of clinical phenotypes. Moreover, although one mutation in the CYP21A2 gene was detected (P30L mutation), a second mutation could not be detected by the available test. Sequencing to find a possible rare mutation could have explained the unique phenotype of the disease because generally, the P30L mutation is associated with less severe forms of CAH. **Conclusions:** This case emphasizes the importance of monitoring infants with CAH and shows that the current classification of this disease is not always in accordance with its evolution, thus incorrect treatment can result in iatrogenic adverse effects.

Keywords: 21-hydroxylase, salt-wasting, fludrocortisone, congenital adrenal hyperplasia

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THE IMPORTANCE OF CARDIAC COMPUTED TOMOGRAPHY ANGIOGRAPHY IN GUIDING INTERVENTIONAL PROCEDURES – A CASE REPORT

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Introduction: The use of cardiac computed tomography angiography (CCTA) in guiding interventional procedures provides a comprehensive assessment of atherosclerotic plaque extension, volume, and composition. Prior to percutaneous coronary intervention (PCI), CCTA offers the opportunity to address certain drawbacks associated with the traditional invasive coronary angiography (ICA), such as vessel foreshortening and difficulties in selecting the ideal projections. This is particularly significant in cases involving ostial lesions and chronic total occlusion. **Case Report:** We present the case of a 67 years-old female, with a history of hypertension, inferior myocardial infarction with revascularization on right coronary artery (RCA) with multiple stents and subsequent intrastent restenosis, type-2 diabetes-mellitus, presenting to our hospital for her periodic follow-up. The patient reported frequent episodes of angina pectoris and fatigue. Assessing the patient's history, it was decided to undergo CCTA which revealed the following: RCA stents were non-opacified with contrast, but distally contrast was present, presumably from collateral vessels, left anterior descending artery (LDA) with a significant low attenuation plaque and left circumflex artery (LCX) presenting total occlusion at the proximal level. The patient was admitted to the Cardiology Clinic and underwent an ICA. The ICA confirmed the CCTA findings: occluded stents on RCA, LCX presenting chronic total occlusion and LDA having a 80% stenosis distally to first septal artery, ramus intermedius, a low caliber vessel, presenting total occlusion. It is worth noting that the LDA is giving collaterals for distal part of RCA and LCX. Considering that the LDA was the last patent vessel, the PCI started with approaching the proximal plaque on LDA, with a stent implantation and restoration of vascular lumen. Next, on RCA, the stents were difficultly passed with hardened guidewire followed by intrastent balloon dilatation, resulting in restoration of the vascular lumen. After PCI the patient's symptoms visibly improved and after five days, she was discharged with double antiplatelet therapy, high dose statin, antihypertensives and SGLT2-inhibitor and diabetic medication. **Discussions :** The case of our patient underlines the complexity and challenges encountered in PCI, particularly in instances of difficult anatomical features and intrastent occlusion. Through a multimodal imaging techniques approach involving interventional cardiology, CCTA imaging, and clinical expertise, the team effectively managed the complex coronary artery disease. **Conclusions:** Our case highlights the pivotal role of CCTA in guiding interventional procedures for complex coronary artery disease. By providing detailed anatomical information, CCTA enabled precise planning and navigation during PCI, overcoming challenges associated with traditional invasive coronary angiography (ICA).

Keywords: Cardiac computed tomography angiography, Percutaneous coronary intervention, Multimodal imaging, coronary artery disease

A JOURNEY THROUGH COMPLEXITIES: MANAGING GENETIC SYNDROMES, CONGENITAL HEART DISEASE, SUPRARENAL INSUFFICIENCY AND LARYNGOMALACIA IN PEDIATRIC MEDICINE

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Introduction: Smith-Magenis syndrome (SMS) is a complicated developmental condition that affects several organs. The condition includes behavioral and cognitive issues, congenital abnormalities like tracheobronchial anomalies, cardiovascular malformations, distinctive facial features, bone deformities, intellectual impairment and sleep problems. **Case Report:** We present a 1-year-and-3-month-old child under observation since prenatal due to a complex heart defect, initially thought to be Tetralogy of Fallot. Molecular analysis of amniotic fluid revealed evidence of Smith-Magenis-syndrome. Postnatally, the child was diagnosed with double outlet right ventricle Fallot-type (DORV), ductal dependent pulmonary circulation with severe pulmonary valve stenosis, persistent arterial duct with a left-right shunt and a right aortic arch. She underwent initial surgery for a systemic-pulmonary shunt from the right carotid artery to the right pulmonary artery and arterial duct ligation. Hemodynamic instability led to a reoperation involving shunt repositioning to the ascending aorta and thrombectomy. The patient associates sternal dehiscence due to defective ossification from respiratory effort and grade II congenital laryngomalacia diagnosed by ENT, leading to chronic respiratory insufficiency requiring oxygen support. At 3 months, she was hospitalized with hypoglycemia, severe hyponatremia, respiratory acidosis, acute bilateral pneumonia and hepatocytolysis. An endocrinology consultation was sought due to frequent hypoglycemic episodes, prompting suspicion of primary partial adrenal insufficiency and initiating oral hydrocortisone treatment. In November 2023, a cardiac MRI to assess pulmonary anatomy revealed normal dimensions of the pulmonary ring, trunk, and arteries, as well as coronary arteries following a normal trajectory. Currently, the patient is admitted to the Pediatrics ward due to congestive heart failure ROSS III, DORV, systemic-pulmonary shunt, Smith-Magenis-syndrome with mild psychomotor development issues and adrenal insufficiency under treatment. Grade II laryngotracheomalacia necessitated oxygen therapy until November, showing clinical improvement thereafter. The case underwent further review in the cardio-surgical meeting with a plan for secondary correction with preservation of the pulmonary ring, and the decision for surgical intervention was endorsed. Post-interventionally, the patient was left with residual injuries: moderate pulmonary stenosis, large infundibular stenosis, pneumonia and pneumothorax under treatment. **Discussions :** Smith-Magenis-syndrome is a multifaceted clinical condition that complicates child development. In our case, there were common clinical manifestations but compared to others, the facial features were not as pronounced, intellectual deficit was mildly affected, and there was multiorgan involvement. **Conclusions:** Accurate evaluation of cognitive, developmental and behavioral impairments, along with the severity of systemic abnormalities is crucial for effective management of Smith-Magenis-syndrome. As there is no curative treatment for this syndrome, periodic multidisciplinary consultations are recommended.

Keywords: Smith-Magenis Syndrom, Congenital Heart Disease, Laryngomalacia, Suprarenal Insufficiency

A PEDIATRIC PUZZLE OF KAWASAKI DISEASE IN THE COVID-19 ERA: NAVIGATING DIAGNOSTIC CHALLENGES AND TREATMENT

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Introduction: Kawasaki Disease (KD) is an acute, self-limited vasculitis with elusive etiology, predominantly affecting children under five years of age. This disease's hallmark is its potential to cause coronary artery aneurysms, making early diagnosis and treatment vital. However, diagnosing KD, particularly in infants, can be challenging due to its broad spectrum of presentations and the overlap with other pediatric illnesses, necessitating a high degree of clinical suspicion and understanding of its atypical manifestations, as well as diagnostic criteria. **Case Report:** A one-year-old child presented to the emergency room with a history of 3 days **high fever**, **generalized rash**, **conjunctivitis**, **pharyngeal erythema** and distinct **vertical fissures on the lips**, coupled with a significant **inflammatory response** marked by elevated C-reactive protein of 10mg/dL, neutrophilic leukocytosis of 31800/µL with 61% neutrophils, and elevated transaminases (ALT=230U/L and AST=340U/L). Serological tests for viral hepatitis, Epstein-Barr virus, cytomegalovirus and viruses in the respiratory tract were negative, and the

chest X-Ray and abdominal echography were normal. However, NT pro-BNP was severely elevated, therefore an **echocardiography** was performed, showing bilateral 2mm coronary ectasia (Z score=2.81-3.18), mitral insufficiency and a patent foramen ovale.Given the presence of high fever resistant to therapy and the stated multisystemic signs, as well as the paraclinical and imagistic findings, the **diagnosis** of atypical Kawasaki Disease was made. **Treatment** with 2 doses of intravenous immunoglobulin (2 g/kg/dose) was immediately initiated, associated with anti-inflammatory-dose aspirin, leading to dramatic clinical and laboratory improvements. **Discussions :** This is an **atypical case** that underscores the diagnostic complexity of Kawasaki Disease, especially in its incomplete form. Interestingly, the COVID-19 pandemic has led to an increased number of KD cases, also sheding light on a condition termed Multisystem Inflammatory Syndrome in Children (MIS-C), which shares similarities with KD, including fever, rash, conjunctivitis. In this global context, this case underscores the critical need for clinicians to distinguish between KD, MIS-C and other pediatric inflammatory/infectious conditions, highlighting the importance of early recognition needed to avoid **complications** such as coronary artery aneurysms or ectasias, which may develop in 25-30% of untreated children. **Conclusions:** Kawasaki Disease remains a diagnostic challenge, particularly in young infants with atypical presentations. Our case is notable because of the **severity of the presentation**, with an **early development of both coronary arteries ectasia**. Moreover, it emphasizes the importance of considering KD in the differential diagnosis of persistent fever and multisystemic involvement in infants, while reinforcing the necessity of immediate intervention which is essential for saving lives.

Keywords: Kawasaki Disease, pediatric vasculitis, coronary dilatations, atypical presentation

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PSYCHOTIC DISSOCIATIVE DISORDER

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Introduction: Psychotic dissociative disorder is a mental process where a person disconnects from their own thoughts, feelings, memories or sense of identity. It usually occurs after the person experienced a traumatic event and it can serve as a defense mechanism against overwhelming emotions. **Case Report:** The purpose of this report is to present a rare case of psychotic dissociative disorder with serious damage of physical health. The 18 year old patient was brought to emergency service of psychiatric clinic due bizarre and chaotic behaviour, incomprehensible speech. This acute psychotic episode debuted four days prior and was characterized by auto- and allopsychic disorientation, disjointed and tangential speech, echolalia, marked suggestibility and restlessness, purposeless movements. The patient's drug test came back negative and she doesn't have any history of psychiatric disorders. According to the patient's mother, symptoms debuted following a traumatic event at school and they worsened during those 4 days. Over the initial three weeks of hospitalization, the patient was non-cooperative and did not respond to the prescribed treatment regimen. Her condition got gradually worse and she started manifesting muscle spasms, dysphonia, dysphagia and ultimately entering a catatonic state. Consequently, she was transferred to the ICU, where she remained for the next 2 weeks. Upon returning to the psychiatric clinic, her mental state had not improved, she continued to exhibit extreme agitation, aimless laughter, and peculiar behaviour. A revised treatment plan yielded success, leading to the patient's discharge after a month of care. Currently, there have been no recurrences of psychotic episodes, and the patient maintains a stable clinical course. **Discussions :** Considering the patient's established hysterical personality tendencies, the traumatic event had an even bigger impact on her. Due to the inclination to seek attention and the reduced capacity to tolerate stress and psychological trauma, the patient dissociated as a way of coping. Several examinations were conducted to ascertain the etiology of her physical deterioration, yet all results returned within normal parameters. This underscores the proposition that her catatonic state was solely precipitated by psychological factors. **Conclusions:** Psychotic dissociative disorder stands as a complex and multifaceted condition that requires a comprehensive and meticulous approach, because clearly this disorder poses significant challenges for both those affected and their caregivers, potentially even endangering the patient's life.

Keywords: dissociative, psychotic, catatonic, trauma

FROM CUSHING SYNDROME TO CENTRAL CORTICOSUPRARENAL INSUFFICIENCY: CASE REPORT

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Introduction: Cushing Syndrome is a disorder characterized by chronic exposure to elevated levels of cortisol, a hormone produced by the adrenal glands arising from various causes. On the other hand, central corticosuprarenal insufficiency refers to a medical condition characterized by the lack of cortisol production due to dysfunction or damage to the pituitary gland, alternatively termed secondary adrenal insufficiency, alongside impairment to the hypothalamus known as tertiary adrenal insufficiency. **Case Report:** Our patient, a 45-year-old woman, presented with stage 2 hypertension, a 10-kilogram weight gain over the past 6 months, facial flushing, generalized edema, fatigue, and bradymenorrhea. Subsequent to an overnight dexamethasone (DXM) 1mg suppression test and urinary free cortisol analysis, hypercortisolism was documented. Following this, suppressed levels of adrenocorticotropic hormone (ACTH) suggested autonomous cortisol production independent of ACTH stimulation. Furthermore, an abdominopelvic CT scan unveiled a solid nodular mass measuring approximately 30-25 mm on the left adrenal gland. Following the investigations, the conclusive diagnosis was ACTH-independent Cushing's Syndrome, with the recommended treatment being unilateral adrenalectomy. Subsequently, the patient developed adrenal insufficiency due to suppression of the hypothalamic-pituitary-adrenal axis, necessitating replacement therapy with Prednisone 5mg/day postoperatively. **Discussions :** Given that the CT scan revealed a mass with a density exceeding 10 Hounsfield Units, the anticipated diagnosis leaned towards adrenal carcinoma. However, subsequent histopathological examination revealed a corticoadrenal adenoma concomitant with a myelolipoma, likely accounting for the observed hyperdensity. Additionally, the functionality of the hypothalamic-pituitary-adrenal (HPA) axis has not been restored even six months post-surgery, as evidenced by the latest laboratory findings. **Conclusions:** Adrenal insufficiency frequently occurs following adrenalectomy; however, it is anticipated that the hypothalamic-pituitary-adrenal (HPA) axis will regain function within a year. During this period, glucocorticoids are typically the preferred treatment option.

Keywords: Cushing, adrenalectomy, glucocorticoids

PARAPHRENIA: THE MIDDLE GROUND

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Introduction: Paraphrenia represents a complex presentation characterized by episodes of hallucinatory psychoses intertwined with persistent delusions, notably featuring persecutory themes and megalomaniacal ideation. Systematized paraphrenia is a frequent clinical form of the illness, with late onset, occurring after the age of 35, featuring insidious onset, delusional interpretations, and hallucinations through the phenomenon of triple automatism (ideo-verbal, sensory, and psychomotor). **Case Report:** The aim of our report is to present a rare case of paraphrenia. Our 46-year-old patient, previously diagnosed with depressive antecedents at the age of 21, sought evaluation at the psychiatric clinic due to a clinical presentation marked by delusional-hallucinatory symptoms. The onset of the illness was insidious, in 2020, against a situational background, when the patient presented in the emergency service with the following symptoms □□□□□ and autopsychic disorientation; persecutory delusional ideas, suspiciousness, interpretability, bizarre behavior consistent with delusional ideation, and the diagnosis of paranoid delusional disorder was established, with a prescription for antipsychotic treatment. The following year, due to non-compliance with treatment, the patient presented in emergency room of psychiatric clinic, with an exacerbation of previous symptoms, along with physical and verbal heteroaggressiveness towards family members, consistent with delusional ideation, and a tendency towards social isolation. These symptoms are characteristic of schizofrenia, but following these episodes, the patient adhered with antipsychotic and antidepressant treatment and the symptomatology has mostly remitted. **Discussions :** Upon the multiple reevaluations of mental state, it was observed that the initial delusional-hallucinatory symptomatology, accompanied by visual hallucinations, is effectively managed and the negative symptoms that characterize schizophrenia were absent. Paraphrenia is a rarely met diagnosis, not because it is such a rare disease, but because very often it passes as a diagnosis of schizophrenia, due to an insufficiently thorough analysis of the

symptoms. **Conclusions:** Unlike schizophrenia, paraphrenia is characterized by a slow progression, with preserved lucidity, intellectual capacity, and appropriate contact with reality, alongside the interference of delusional nucleus and hallucinations.

Keywords: paraphrenia, schizophrenia, delusional ideas

XANTHOGRANULOMA OF THE PITUITARY REGION, IN THE SHADOW OF ASTHENIA AND BRADYCARDIA, WITHIN A PEDIATRIC PATIENT

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Introduction: Xanthogranulomas are benign lesions frequently found on the skin. The sellar location is remarkably uncommon, usually occurring in adolescents, making it difficult to differentiate from other pituitary lesions. The diagnosis is made postoperatively, during pathological analysis. Given the subtle clinical changes and the tumor's aggressiveness affecting the optic chiasm, prompt patient management is imperative. **Case Report:** A 16-year-old male patient presents with an intense occipital headache starting 3 months ago and weight loss after academic overload. During the neurological examination, only bradycardia was discovered, and the patient was referred to the pediatric cardiology department. The cardiological examination showed non-pathological findings, except for significant asthenia and sinus bradycardia on electrocardiogram. The causes of asthenia were investigated, and a hormonal profile of the hypothalamic-pituitary axis was performed, revealing pleiotropic pituitary insufficiency and hyperprolactinemia. MRI revealed a suprasellar lesion occupying the entire pituitary fossa with compression on the pituitary stalk. The tumor was excised through a trans-sphenoidal approach, the histopathological examination suggested a xanthogranuloma. Postoperatively, the evolution was favorable. Temporary substitution with levothyroxine and hydrocortisone was performed until the hormonal parameters normalized. **Discussions :** The patient was diagnosed early, as there were no visual or neurological alterations. The decreased appetite and bradycardia represented subtle signs and symptoms of intracranial hypertension. Investigating hypothyroidism or Addison's disease, a deficiency of hormones on the central axis was revealed. **Conclusions:** Pituitary xanthogranuloma has a subtle clinical evolution. The headache, asthenia and incidental bradycardia were the pillars of this diagnosis. Due to prompt presentation and rapid diagnosis, the outcome was excellent.

Keywords: Xanthogranuloma, Pituitary Gland, Asthenia, Occipital Headache

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#SEVERECOVID-19: THE TRENDING TRIGGER

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Introduction: Post-COVID-19 interstitial lung disease (ILD) is known to be a sequellary, organizing form of the interstitial pneumonia, that can sometimes be progressive. Obstructive Sleep Apnea (OSA) is known to be a risk factor for COVID-19 morbidity and short and long-term mortality. Pulmonary Alveolar Proteinosis is an ultra-rare disease in which surfactant components, that impair gas exchange, accumulate in the alveolae, that only have around 500 reported cases in total. **Case Report:** The following paper presents the case of a 38-year-old female patient who was admitted in our pneumology department for periodic evaluation, accusing mild exertional dyspnea. Medical history revealed obesity (BMI=40 kg/m2) CT-confirmed Interstitial Lung Disease (ILD) after a severe episode of COVID-19 infection 3 years ago. She underwent a recent diagnosis of Obstructive Sleep Apnea (OSA) under Continuous Positive Air Pressure (CPAP). Spirometry and plethysmography were performed, indicating the aggravation of the restrictive lung disease comparing to the results from the last check-up. As SpO2 levels lowered significantly, ventilatory polygraphy was performed to evaluate OSA, characterizing it as severe and in need for 24h oxygen therapy. CT scan revealed the diffuse pattern of the Non-Specific Interstitial Pneumonia (NSIP), progressing and starting to differentiate from typical, looking more like "crazy-paving" appearence. Lung biopsy indicated secondary Pulmonary Alveolar Proteinosis (PAP), an extremely rare disease, that was treated using whole lung lavage **Discussions :** No significant association between post-COVID19 ILD and the development or aggravation of OSA has been described previously. The important desaturations could be caused by the advanced apneic disease overlapping the severe ILD. Studies have shown several connections between ILDs and OSA, including the need to step up the treatment options to oxygen therapy and mechanical ventilation. In the case of PAP, only several case reports associated severe COVID-19 history with PAP and none associating PAP and Post-

COVID-19 or any other type of ILD. This data can probably indicate that the ILD in this patient may probably never have been ILD, but PAP from the very beginning. **Conclusions:** This so-called "trending" virus, COVID-19, among its known ILD complication, may precipitate other comorbidities that decrease the patient's life quality and expectancy.

Keywords: Severe COVID-19 infection, Obstructive Sleep Apnea, Pulmonary Alveolar Proteinosis

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A RARE PSOAS MUSCLE METASTASIS AFTER AN UNDIAGNOSED CERVICAL CANCER

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Introduction: Cervical cancer is the 4th most common cancer worldwide among all female cancers. The most frequent cause is the chronic infection with a high-risk type of HPV virus (HPV 16-18). In Romania, cervical cancer ranks as the 3rd most frequent among women and the death rate is exceeding four times the death rate in Europe, this is explained by of the lack of health education programs and the still developing screening programs. **Case Report:** Seven years ago, a 50-year-old woman was diagnosed with uterine fibroids and underwent total bilateral hysterectomy with adnexectomy. The patient underwent an MRI one month after the operation, but no other information was presented to her after. In January 2024, the patient presented to the hospital with back pain of sudden onset for 2 months, radiating to the right lower limb, and a weight loss of 5 kg in the last month. Examination with MRI suggested an abcess of the psoas, but ultrasound showed a solid mass with necrosis. After contacting the previous pathologist that examined the uterine fibroids, we found out that the diagnosis was squamous cell carcinoma. Correlating the symptoms, with the initial diagnosis and with the imaging and cytological results, the diagnosis of cervical cancer metastasis at the level of the psoas muscle was reached. **Discussions :** Cervical cancer is difficult to detect in early stages, but it is a real challenge to start the diagnosis from an unusual single site of metastasis, such as the psoas muscle, and reach the diagnosis that should have been made 7 years ago. Studies have shown that single-site metastasis occurred in almost 70% of cases, the most common being metastasis in the lung (37,9%), bone (16,7%), liver (12,5%), and less than 1% in skeletal muscle. The survival rate of patients who developed metastatic cervical cancer is between 8 and 13 months, just 16,5% of patients survive for more than 5 years. **Conclusions:** This case report evidence the importance of an appropriate screening and also the differential diagnosis for a retroperitoneal mass, taking into account both imaging and cytological results, and also the patient's history.

Keywords: cervical cancer, psoas muscle metastases, hysterectomy

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UNVEILING THE MYSTERIES OF CHRONIC PULMONARY ASPERGILLOSIS: UNUSUAL LOCALIZATION EXPLORED

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Introduction: Chronic pulmonary aspergillosis, commonly caused by Aspergillus fumigatus, is a progressive condition characterized by extensive fibrosis and deterioration of lung function, mainly affecting patients with pre-existing lung disease. Aspergillus species can cause various conditions, including allergic reactions, local superinfection and invasive disease. **Case Report:** This report aims to present the case of a 54-year-old man with a history of exposure to industrial dust, smoker, known with type II diabetes mellitus, insulin-dependent and secondary pulmonary fibro-nodular tuberculosis of the upper lobes and right-sided caverns diagnosed and treated three years ago. The patient presented with massive hemoptysis, dyspnea on exertion, weight loss of 8-10 kg in recent months. CT examination revealed the presence of two cavitary lesions in the right upper lobe and the apical level of the lower lobe, containing intracavitary masses of fungus balls, surrounded by an airy crescent (Monod sign), right upper lobe atelectasis and multiple pulmonary micronodules in the ground glass opacity. Biological samples were taken for IgG assay specific to Aspergillus fumigatus subsequently with positive results. Antifungal treatment was initiated with periodic clinico-biological and imaging re-evaluation. At the last check-up, the imaging aspect was in evolution and indicated the appearance of new cavitary lesions near the pre-existing ones with specific aspect of aspergilloma. **Discussions :** Even after six months of antifungal therapy using Itraconazole, our patient continued to experience symptoms, and there was a continued worsening of imaging results. Surgery was

considered but the patient refused and antifungal therapy was continued for another month. The following images showed an advanced stage of chronic cavitary aspergillosis characterized by extensive pulmonary destruction, irregular cavities bordered by massive fibrosis with the appearance of condensation, affecting 2 surrounding lobes, with significant functional loss. Surgical removal of the upper right lobe and the upper segment of the lower right lobe stands as the ultimate treatment option. **Conclusions:** Chronic fibrosing pulmonary aspergillosis represents an uncommon complication of chronic pulmonary aspergillosis, typically detected upon presentation but occasionally emerging after several years in patients untreated with antifungals. The fibrosis typically persists unilaterally, extending extensively without spreading to the opposite lung. Regarding prognosis, while some patients may maintain stable radiological features for several years, others may experience a more rapid decline.

Keywords: Aspergillus fumigatus, Extensive fibrosis, Airy crescent, Antifungal therapy

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FROM SUBTLE SYMPTOMS TO SURVIVAL: PRECISION MEDICINE'S TRIUMPH IN GASTRIC CARCINOMA

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Introduction: Gastric cancer ranks as the fourth most common cancer globally, impacting approximately one million individuals annually. Early gastric carcinoma (EGC) is characterized as an invasive adenocarcinoma confined to the mucosal or submucosal layers, regardless of the presence or absence of lymph node involvement. **Case Report:** We report the case of a 39-year-old male with a background of heavy smoking, now abstinent for 8 years, and employed in a high-stress job, but with no other significant medical history. He presented at our clinic with a body mass index (BMI) of 40 kg/m^2. The patient sought medical attention due to recently developed gastric discomfort, which he noticed specifically after consuming certain foods, such as cheese. Guided by a precision medicine specialist, the patient underwent a thorough array of medical tests and laboratory evaluations. These tests yielded notable results, including the assessment of tumor biomarkers such as CEA, CA 19-9, CA 125, and CA 72-4, which were within normal limits; only M2-PK was increased. An initial gastroscopy was undertaken. The clinical findings indicated erosive antral gastritis. The histopathological examination of the biopsy showed the presence of large vacuolated cells with a signet ring appearance in mucosal pools, alongside cells forming tubular and irregular structures, complete with dysplasia, mixed inflammatory infiltrate, and desmoplastic stroma, all in the absence of Helicobacter Pylori colonization. Complementary to these findings, a computed tomography (CT) scan revealed thickening of the gastric walls along both the small and great curvatures. A follow-up gastroscopy corroborated the initial diagnosis. Considering these findings, the patient underwent an expedited total gastrectomy and cholecystectomy. After the procedures, the patient was deemed to be in remission. **Discussions :** This case report underscores the criticality of precision medicine in interpreting nonspecific clinical manifestations, such as subtle and gradual onset of mild abdominal discomfort. A meticulous clinical history-taking and the implementation of a strategic, targeted approach facilitated the successful elimination of malignant neoplastic lesions within a span of less than 45 days from the initial medical consultation in a relatively young patient. **Conclusions:** We concisely delineate the strategic approach employed in the successful management of a rare case of early gastric carcinoma (EGC), illustrating the efficacy of precision medicine. Timely and precise diagnosis facilitated the restoration of the patient's prospects for a normal life, free from dietary limitations and the necessity for continuous pharmacological therapy.

Keywords: Early Gastric Carcinoma (EGC), Precision Medicine, Signet Ring Cells, Gastrectomy

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EARLY-ONSET COLORECTAL CANCER: CASE PRESENTATION

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Introduction: Colorectal cancer (CRC) ranks as the third leading cause of cancer-related mortality worldwide. Recent years have witnessed an increase in the incidence of CRC among adults <50 years old on a global scale. The increased incidence is associated with several variable risk factors, but certain cases of early-onset colorectal cancer (eoCRC) are associated with a genetic predisposition, the majority result from sporadic mutations in the following genes APC, KRAS, BRAF and TP53, which trigger uncontrolled cell proliferation and tumor formation. **Case Report:** We present the case of a 48-years-old male patient who arrived at the Oncological Institut Prof. Dr.

Ion Chiricuta in Cluj-Napoca complaining of persistent lower abdominal pain, hematochezia, loss of appetite and significant weight loss. Endoscopically, a rectosigmoid tumor formation confirmed by biopsy was identified for which surgical intervention was performed with resection of poorly differentiated adenocarcinoma (G3), stage III. Due to the risk of recurrence, the patient underwent six cycles of adjuvant chemotherapy which evolved with hematological toxicity. Therefore the treatment was delayed and the administration of granulocyte growth factors was necessary. Three months after the end of the treatment, the imaging evaluation revealed a liver metastasis and increased ACE marker. Local treatment of liver metastasis was performed, but because the marker continued to show high values, a PET scan was done, which revealed liver recurrence. Currently, the patient has restarted systemic chemotherapy associated with targeted therapy, as he has the KRAS wild-type mutation, an essential condition for anti-EGFR therapy. **Discussions :** The young age of the patient, the rapid evolution of the disease and the lack of response to oncological treatment point towards a pathology with genetic determinism such as Lynch syndrome, also known as hereditary non-polyposis colorectal cancer (HNPCC). Lynch syndrome, characterized by DNA mismatch repair deficiency, represents a significant paradigm among cancer predisposition syndromes and is notably associated with heightened susceptibility to various cancers, particularly colorectal and endometrial malignancies. Genetic alterations in MMR genes, including MLH1, MSH2, MSH6, PMS2, and EPCAM, compromise DNA repair mechanisms, predisposing affected individuals to a spectrum of malignancies. **Conclusions:** Family members of patients affected by CRC have an increased risk of CRC development. In these individuals, screening is strongly recommended and should be started earlier than in the population with average risk, in order to detect neoplastic precursors, such as adenoma, advanced adenoma, and nonpolypoid adenomatous lesions of the colon.

Keywords: Lynch syndrome, adenocarcinoma, adjuvant chemotherapy, screening

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AGGRESSIVE BREAST CANCER WITH MULTIPLE DETERMINATIONS AT FIRST ADMISSION – CASE REPORT

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Introduction: Breast cancer is a complex and heterogenous disease that affects millions of individuals worldwide, irrespective of age or ethnicity. With numerous subtypes and varying degrees of aggressiveness, breast cancer presents a significant challenge in terms of diagnosis, treatment and management. **Case Report:** We report the case of a 57-year-old woman who presented to the Surgery Department, accusing breast discomfort, shortness of breath and abdominal pain. A CT was performed and revealed a diffuse infiltrative lesion spread through the right breast and axillary lymph nodes, bilateral pleural effusion, peritoneal carcinomatosis, ascites and bone metastases. A biopsy of the right breast, thoracocentesis and paracentesis was performed and sent to the Pathology Department. Microscopically, an infiltrative tumoral proliferation was identified, corresponding to an invasive lobular breast carcinoma with signet ring cell component, without in situ component. The tumoral cells were immunohistochemically positive for Citokeratin 7, GATA3 and ER. In the pleural and ascites fluid tumoral cells were identified, with marked cyto-nuclear pleomorphism, that were forming pseudo-glandular structures. Immunohistochemically, the tumoral cells were positive for GATA3 and ER markers. **Discussions :** The immunohistochemical profile of the tumoral cells from pleural effusion and ascites fluids suggest their mammary primary origin. The particularity of the case is emphasized by the fact that the patient is at her first admission and all the specimens collected: breast biopsy, pleural and ascites fluid, all confirmed the presence of malignant cells. In addition to this, the CT scan showed signs of bone metastases and peritoneal carcinomatosis. **Conclusions:** This case illustrates the importance of interdisciplinary management of the cases with multiple determinations and the weight of immunohistochemistry on correlating all patient's specimens and giving only one diagnosis.

Keywords: Lobular breast cancer, pleural effusion, ascites fluid, immunohistochemistry

PERSISTENT FEVER, A VEGETATION ON THE AORTIC VALVE AND POSITIVE SEROLOGY FOR MORE BACTERIA

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Introduction: Q fever is a zoonosis caused by Coxiella burnetii, an obligate gram-negative intracellular bacteria. Human Cytomegalovirus (CMV) is a member of the family Herpesviridae and usually causes an asymptomatic infection or produces mild flulike symptoms. Our patient was diagnosed with coinfection of C. burnetii and CMV and the purpose of this case report is to highlight both of them as potential causes for persistent fever. **Case Report:** Our patient is a 33-year-old man, who comes for a consult because of fever (39,3°C), sweating, myalgia, which have begun 10 days before. Further examinations show pharyngeal congestion, signs of interstitial pneumonia on the chest X-ray, positive antibodies for CMV and positive Coxiella burnetii phase II IgM. At this point, the case is interpreted as an interstitial pneumonia and bacterial infection of unknown ethiology and the antibiotic treatment with doxycycline is initiated. The patient is discharged after 3 days, but returns after 4 days for the same symptoms. The following antibodies are now positive: CMV antibodies, Chlamydia pneumoniae IgM, Mycoplasma pneumoniae IgM, Coxiella burnetii phase II IgM. He has now a grade 2 systolic murmur in the aortic focus, so transesophageal echocardiography was recommended and showed: bicuspid aortic valve and a residual vegetation attached to the aortic valve. Considering the Duke criteria for endocarditis (here are 1 major and 2 minor criteria persent), the patient was diagnosed with possible infective endocarditis with Coxiella burnetii and acute CMV infection. The treatment for chronic infection with Coxiella burnetti was initiated (doxycycline and hydroxychloroquine for 18 months). **Discussions :** The significantly higher values of CMV antibodies during the second hospitalisation show an acute infection with CMV, which explains the lack of answer to the doxycycline treatment and the polyclonal activation with false positive responses to the Chlamydia pneumoniae and Mycoplasma pneumoniae tests. 60% of the patients with acute Q-fever are asymptomatic and the others may have mild disease. Among those with acute infection, 0,2% to 1,4% may develop chronic infection. Endocarditis with negative culture findings and seropositivity is the main clinical presentation of chronic Q fever, usually occurring in patients with preexisting cardiac disease. **Conclusions:** Patients with persistent fever and no chronic disease associated can lead to diagnostic challenges. Coxiella burnetii and CMV are both uncommon causes of fever and flu-like syndrome and should be taken into consideration when we face a patient with fever of unknown origin.

Keywords: Coxiella burnetii, Cytomegalovirus, Infective endocarditis

GIGANTIC SPLENIC HEMANGIOMA: A CONTRAST-ENHANCED ULTRASONOGRAPHY CONUNDRUM

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Introduction: Splenic hemangiomas are benign vascular lesions with potential for severe complications such as rupture and bleeding. The optimal management of these lesions remains controversial, and appropriate management requires careful evaluation of each individual case. Usually, they are less than 2 cm in diameter and have a specific vascular pattern in Contrast-enhanced ultrasonography (CEUS).The aim of this case study is to illustrate the management of a 70 years old patient with a splenic gigantic focal lesion and to underscore the importance CEUS in describing the vascular pattern. **Case Report:** We present the case of a 70-year-old man with a history of ischemic nephropathy, right renal artery stenting, coronary heart disease, and systemic arteriosclerosis, who has been monitored for 3 months. Patient also had a traumatic event more than 10 years ago. At ultrasound (US) examination, there was a normal vascular pattern in the renal arteries but a huge lesion was found in the spleen. CEUS and CT scan confirmed the benign character of the lesion. **Discussions :** Patient US examination of the abdomen revealed no signs of restenosis at the renal arteries, with a reno-aortic index below 2, and normal acceleration time within both kidneys. Though, in the spleen, a 9.7 cm inhomogeneous lesion was found, more hyperechogenic than the normal spleen tissue, with transonic areas inside, rising the suspicion of a malignant tumor. We used a performant Esaote Mylab9 equipment that allows the microvascularization (microV) and the CEUS examination. There was a late enhancement within the lesion, and a persistence of the contrast agent more than 3 minutes after 1.6 ml of SonoVue bolus injection, that corresponds with a benign pattern.

Because of a normal renal function, contrast-enhanced CT scan was performed and the diagnosis was confirmed. Splenic hemangiomas are benign tumors usually les than 2 cm in diameter, but in our case a more complex focal lesion was found. The vascular patters confirmed the hemangioma, although an organized hematoma was initially suspected. **Conclusions:** We emphasize that a complex splenic lesion can have a benign character, highlighting the need for a multiparametric imaging approach in patient`s management. The quantification of the vascularization provided vital insights for identifying the benign pattern of the microvascularization. This integrated approach and ongoing patient assessment are essential for effective and comprehensive case management.

Keywords: Benign vascular lesions, splenic hemangioma, ischemic nephropathy, multiparametric ultrasound

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HISTRIONIC PERSONALITY DISORDER AND THE DEFENSE MECHANISMS USED

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Introduction: Introduction: Dissociative psychotic disorder typically has a sudden onset against a backdrop of structural vulnerability. Often, the personality disorder involved in dissociative pathology is histrionic, characterized by features such as emotional immaturity, egocentrism, self-love, demonstrativeness, and hyperexpressiveness. **Case Report:** Case Report: A 56-year-old female patient with documented psychiatric history spanning approximately 6 years, non-compliance at treatment, and multiple psychiatric diagnoses over the years, was admitted in emergency due to a psychopathological presentation specific to the delusional-hallucinatory syndrome. Throughout the hospitalization, hallucinations, mystical delusional ideas, paranoid delusions of persecution and harm, disinhibited, bizarre, disorganized behavior were evident but rapidly responded to antipsychotic treatment. Additionally, there was an increased tendency towards simulation, a need for attention by alleging various somatic symptoms not confirmed by objective examination or paraclinical investigations. Low self-esteem, decreased empathy towards others, selfishness, and superficiality in relationships with other patients were also noted. **Discussions :** Discussions: It is noteworthy that the patient lacks a social support network, being divorced, with her children living abroad, relying on a granddaughter who cannot provide the necessary care. Without an adequate social support network, the patient feels abandoned, which may explain the psychotic decompensations she experiences as she tries to overcome obstacles in life, becoming a defense mechanism in this way. **Conclusions:** Conclusion: This case highlights the use of primitive defense mechanisms such as dissociation and somatization to cope with difficult situations, considering the patient's intellectual, educational level, and socio-cultural context. It is also worth mentioning that the heterogeneous manifestations of histrionic personality disorder made the patient's diagnosis difficult to establish on a prolonged period.

Keywords: Histrionic personality disorder, Defense mechanisms, Dissociation, Somatization

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BEYOND THE NAKED EYE: UNVEILING MICROMETASTASIS IN GASTRIC CARCINOMA - A CASE REPORT

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Introduction: Gastric cancer (GC) is the fifth most common type of cancer worldwide with adenocarcinoma representing the most prevalent subtype, comprising over 90% of all gastric tumors. Due to its abundant lymphatic flow, stomach cancer poses challenges in assessing lymph nodes (LNs) metastasis, most of them being microscopic metastasis (MM). Therefore, the accuracy of pathological diagnosis and staging is crucial in the management of oncologic patients. **Case Report:** We present the case of a 54-year-old male who underwent partial gastrectomy with gastrojejunostomy, for a gastric tumour, previously confirmed on a biopsy. During the pathological handling, an ulcerative-infiltrative tumor mass with elevated borders was observed on the lesser curvature. Microscopic evaluation revealed an infiltrative neoplastic process involving the gastric wall up to the subserosal layer. The tumour presented with a heterogenous appearance, comprising of sheets of neoplastic columnar cells, together with nests and single signet-ring cells surrounded by extracellular mucin. Among the 10 regional LNs sampled and examined, only one exhibited positivity for neoplastic cells. Specifically, we detected a small group of neoplastic cells presenting intracytoplasmic mucin with an eccentrically displaced nucleus located

within the marginal sinus of that node. **Discussions :** Mucinous adenocarcinoma with signet-ring cell component is among the most aggressive subtypes of GC. MM refers to tumour cell clusters measuring less than 2 mm in the greatest dimension. There are conflicting data regarding MM and their significance, yet it is undeniable that they worsen the prognosis. The pathophysiology of MM involves two critical mechanisms: diminished cell-cell adhesion and degradation of the extracellular matrix by proteolytic enzymes. The unique morphology of signet-ring cells component, characterized by reduced cell-cell adhesion due to mucin-rich vacuoles, exacerbates their poor cohesion, thereby influencing tumor behavior and metastatic propensity. Furthermore, lymphangiogenesis, facilitates tumor cell infiltration into lymphatic channels, enhancing MM in the regional LNs. In our case the presence of the metastatic neoplastic cells was only seen under the highest magnification, which could have been easily missed in other settings. Particularly, the presence of MM had worsened the overall staging. According to some available data, MM have the same prognostic value as lymph node macrometastasis. **Conclusions:** With GC being a rising health concern in our country, rigorous pathological assessment of MM is crucial for establishing a precise diagnosis and staging, thereby influencing the quality of life for the patients throughout tailored treatment strategies.

Keywords: Micrometastases, gastric adenocarcinoma, lymph nodes, signet-ring cells

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PATIENT WITH AMEBIC LIVER ABSCESS IMPORTED FROM ITALY

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Introduction: Amoebiasis is a disease caused by parasitic protozoan Entamoeba histolytica. The disease affects approximately 50 million people each year. The majority of cases come from subtropical and tropical regions with poor sanitation. The infection occurs when food or water contaminated by feces water is ingested. There are intestinal and extraintestinal forms, the most common of which is amebic liver abscess (ALA). The main symptoms of ALA are fever and pain in the right upper quadrant of the abdomen. The intestinal form of amoebiasis is treated pharmacologically with protozoal-killing drugs, while in ALA, additional drainage or percutaneous needle aspiration may be warranted. **Case Report:** A 74-year-old patient from Italy was admitted to the hospital in November 2023 due to anemia in the course of myelodysplastic syndrome with multilineage dysplasia. Abdominal ultrasound showed dilated bile ducts, an anechogenic lesion, and a low-echogenic structure (approximately 130 mm) with echogenic formations protruding inside. A contrast CT revealed a smooth-wall lesion measuring 125 mm in diameter filled with fluid of increased density. IgG antibodies for Echinococcus granulosus were positive. At the beginning of 2024, the patient, presenting with jaundice, pale stools, and dark urine, was admitted to the University Hospital. On physical examination, Chełmoński's sign was positive. Laboratory tests revealed ALT 133 U/l (<41 U/l), AST 114 (< 37 U/l), total bilirubin 20, 75 mg/dl (<1,2 mg/dl), ALP 298 mg/dl (<120mg/dl), GGTP 557 U/l (<61 U/l). IgG antibodies for Entamoeba histolytica were positive. Contrast CT scan revealed bile ducts compressed by a cyst measuring 130x115x150 mm with dense content and a gas bubble. During drainage procedure, over 1,5 liters of chocolate-colored fluid were drained. Based on laboratory findings and clinical presentation, the diagnosis of ALA was stated. Treatment with metronidazole, chloroquine, doxycycline, blood transfusion, and hydration was implemented, resulting in visible improvement in the patient's condition. **Discussions :** The patient resided in countries such as Italy and Poland. In Europe, most amoebiasis cases are imported from endemic regions. Symptoms can manifest even decades after returning from endemic areas. However, our patient denied traveling outside of Europe. On the other hand, transmission through sexual contact or by ingestion of imported food contaminated with amoeba cannot be ruled out in this case. **Conclusions:** Extraintestinal amoebiasis should be suspected in travelers with abdominal pain and focal liver lesions returning from the Mediterranean area, including Italy.

Keywords: amoebiasis, amebic liver abscess, echinococcosis

COMPLICATIONS OF TRANSARTERIAL CHEMOEMBOLIZATION IN THE TREATMENT OF LIVER TUMORS

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Introduction: Hepatocellular carcinoma is one of the most common and fatal cancers in the world. **Case Report:** We present the case of a 69-year-old patient with a diagnosis of inoperable multicentric hepatocarcinoma, BCLC B for which, considering the performance status, systemic treatment with Sorafenib and local TransArterial ChemoEmbolization treatment is recommended. Objective examination and pre-procedural laboratory tests show: bloating, mild tenderness on abdominal palpation, slightly elevated direct bilirubin and GGT. Post-procedurally the patient presents with intense right upper quadrant pain, pain with lesser intensity throughout the abdomen in association with hypertensive episode (BP=220/133mmHg) and oxygen requirement. The biochemical work-up reveals the presence of inflammatory syndrome with leukocytosis, reacted CRP and PCT, a pancreatic reaction with highly reacted lipase, hepatocytolysis and cholestasis syndrome. Abdominal ultrasound is recommended, but due to significant aerocolia it is difficult to perform. However, it helps in confirming the suspicion of acute pancreatitis, acute cholecystitis by edema of the walls, distention of the cholecyst and presence of pericholecystic fluid, respectively of possible inflammatory pancolitis by the presence of edema of the digestive tract (duodenum, small intestine, large intestine). Subsequently, a CT scan with contrast substance is performed confirming the elements detected on ultrasound, completing the panel by the presence of a bilateral basal pleural collection. It is recommended to stop the patient's enteral feeding and to institute hydro-electrolytic rebalancing treatment, empirical antibiotic therapy (based on possible bacterial translocation and possible infection of the evolving necrotic areas), hepatoprotective treatment, adjustment of antihypertensive treatment, multimodal analgesia, and nasal cannula oxygen therapy with 3L/min to maintain SpO2=98%. In evolution the patient remains clinically stationary, hemodynamically stable, with TAM >65mmHg, decreasing biological samples, reason for which it is decided to discharge him with recommendation of oncological re-evaluation in order to continue the treatment with Sorafenib. **Discussions :** Because of the increased risk of recurrence, TACE is not recommended as a first-line treatment for localised tumours, in which case liver resection techniques are used, but it is the standard of care for patients with multinodular hepatocellular carcinoma and preserved liver function or for patients with inactivated liver cancer who cannot undergo surgery. **Conclusions:** Although considered a safe procedure, TACE is associated with several complications, of which acute cholecystitis is the most common. Pulmonary embolism, liver abscess and gastric mucosal injury also outline the picture of post-TACE complications. Acute pancreatitis is less common but is associated with a very high risk.

Keywords: TACE, hepatocellular carcinoma, acute cholecystitis

TIME, AN IMPORTANT PART IN BACTERIOLOGY DIAGNOSTIC CHAIN-A CASE REPORT FOR MENINGITIS

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Introduction: Acute bacterial meningitis is an infectious disease characterized by the presence of meningeal syndrome, inflammation of the leptomeninges and changes in the aspect of CSF. Bacterial meningitis is less common compared to its viral counterpart and presents a more dire prognosis if it is left untreated. **Case Report:** We present the case of a 10-year-old patient who presented to the Municipal Hospital in Târnăveni with affected general condition, fever, occipital cephalgia, emesis, rigors. She followed symptomatic treatment without improvement and laboratory tests detected an elevated leukocyte count (93.2% represented by neutrophils), along with increased levels of C-reactive protein (178 mg/l) and high blood glucose levels (150 mg/dl). In the emergency department, the patient underwent a CT scan which revealed a fluid collection occupying the entire left maxillary sinus, but the diagnosis of meningoencephalitis couldn't be established based on the CT. Infectious Diseases consultation and an MRI were recommended. The patient was transferred to the Infectious Diseases Clinic I. Upon admission, objective examination of the nervous system indicated limited osteotendinous reflexes, positive Brudzinski, meningeal irritation syndrome (limitation of joint movements in the cervical joints). Laboratory investigations showcased the following: cerebrospinal fluid with turbid appearance, a positive CSF Pandy test, no

bacterial growth from the CSF sample, a high number of lymphocytes and granulocytes (12288/3), increased protein levels in the CSF. During hospitalization, the patient was treated with Ceftriaxon, Vancomycin, Dexamethasone (as adjuvant in therapy) and Mannitol. Prior to discharge, laboratory tests showed a decrease in the total number of elements (128/3), with 68/3 neutrophils. Also, CSF protein levels and C-reactive protein were much lower than before the initiation of treatment. The outcome was clinically favourable, with remission of febrile syndrome and intracranial hypertension syndrome. **Discussions :** Based on the anamnestic data, clinical and paraclinical investigations, a diagnosis of bacterial meningitis was made despite the impossibility of identifying the pathogen. The blood culture collected in the emergency department was free of bacterial growth, as was the CSF sample collected after initiation of antibiotic therapy. This was a favourable case in which the pathogen responded to therapy without showing signs of resistance, but treatment cannot always be given without identifying the bacteria. **Conclusions:** Time is an important constant in the treatment of meningitis, which is a medical emergency that must be treated quickly. However, the prioritization of pathogen identification is equally imperative, particularly in instances of uncommon etiologies, to ensure favourable treatment outcomes.

Keywords: bacterial meningitis, time, antibiotics, diagnosis

COR TRIATRIATUM SINISTER: A SINISTER PROGNOSIS? - A CASE REPORT IN A NEWBORN INFANT

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Introduction: Cor Triatriatum represents an extremely rare congenital cardiac malformation, accounting for 0.1%-0.4% of all congenital heart defects, characterized by an intraatrial membrane dividing one of them into two distinct compartments. Left atrium is more frequently affected, and the upper cavity conduct to malformations of the pulmonary veins. **Case Report:** We present the case of a 1-year-old patient admitted to the 2nd Pediatric Department of the Emergency Clinical County Hospital of Craiova, in a severe general condition, hemodynamically unstable, with dyspnea, tachypnea, central and peripheral cyanosis, hepatomegaly, and peripheral edema that started in the last weeks. Maternal history reveals an uncomplicated pregnancy, delivered at 37 weeks by cesarean section. Following the echocardiographic examination, a cor triatriatum malformation, severe pulmonary hypertension, and NYHA class IV heart failure were diagnosed. Due to the potential risk of deterioration, the patient was transfered to the pediatric intensive care unit of the Cardiovascular Emergency Institute of Tg. Mures, where the patient goes into cardiorespiratory arrest and does not respond to resuscitation maneuvers, resulting in death. The autopsy revealed a complex cardiovascular malformation: a septated left atrium through a musculo-conjunctival septum, subnumerary pulmonary veins due to agenesis/atresia of one of the right pulmonary veins, an ostium primum type atrial septal defect, eccentric right ventricular hypertrophy, and microscopic findings of myocardial interstitial edema, acute pulmonary edema, and chronic pulmonary congestion. **Discussions :** Cor triatriatum presents a wide spectrum of manifestations, from asymptomatic cases incidentally discovered during routine cardiac consultations or autopsies, to complications such as right heart failure, acute pulmonary edema, atrial fibrillation, and premature death. Diagnosis and treatment require a multidisciplinary team, as early correct diagnosis, in the absence of other malformations, has an excellent prognosis. Surgical intervention is curative, involving membrane resection followed by closure of the defect with a pericardial patch. **Conclusions:** The particularity of the case lies in the association of congenital heart malformations that decrease life expectancy and render surgical intervention impossible, with the evolution inevitably leading to death.

Keywords: cor triatriatum,, cardiac malformation,, heart failure

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SWOLLEN KNEE IN A RUNNER - A DIAGNOSTIC PUZZLE

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Introduction: Ankylosing Spondylitis (AS) is a chronic and progressive inflammatory disease that affects the axial skeleton. Peripheral joints and extra-articular structures may also be affected. It usually presents in men in their second or third decade and leads to reduced spinal mobility and back pain. Ankylosing Spondylitis presents a strong association with histocompatibility antigen HLA-B27. **Case Report:** We present the case of a 43-year-old male, a runner, who presented to the orthopedics yard with complaints of disabling pain and swelling of the right

knee. MRI showed inflammatory adhesions and inflamed synovial folds. Four days later he presented to the rheumatology department for further investigations. The knee ultrasound revealed significant fluid accumulation with synovial proliferation and Doppler signal grade two. Examination of the fluid drawn from the knee articulation showed no crystals and no positive culture, ruling out gout and septic arthritis. Differential diagnosis also excluded Reactive Arthritis, as laboratory results revealed negative anti-Chlamydii and negative anti-Mycoplasma antibodies. Anamnesis revealed an episode of lumbar pain four years prior, interpreted as an L5-S1 discopathy, and treated with Nonsteroidal anti-inflammatory drugs (NSAIDs). The clinical exam indicated flattening of the lumbar lordosis, positive patellar reflex, and global tumefaction of the right knee. The pelvic X-ray revealed bilateral sacroiliitis stage II/III. Blood work demonstrated raised ESR (70) and raised C-reactive protein (6.8), pointing towards a case of marked inflammatory syndrome. The patient did not complain of limited mobility or pain in the spine but soon began to develop dactylitis and tendinitis, suggestive of AS. HLAB27 positive, and findings of active and chronic lesions demonstrated by the MRI confirmed the diagnosis. **Discussions :** Underdiagnosed inflammatory lumbago is a reason for late diagnosis of ankylosing spondylitis (8 years on average). This delay is often responsible for the occurrence of ankylosing lesions. The atypical onset of AS can represent a diagnostic challenge, therefore it is important to have this thought especially in young men with musculoskeletal disorders. Monoarthritis can have multiple causes that require a differential diagnosis, among them being AS. In this case, the patient's hobby, running, and the atypical onset of the symptoms represented diagnostic pitfalls, and the subsequent appearance of other extraskeletal manifestations outlined a diagnostic puzzle. **Conclusions:** This case underscores the importance of conducting a detailed anamnesis when it comes to a young patient with a history of back pain, as it may be the key to early diagnosis and treatment.

Keywords: Ankylosing Spondylitis, monoarthritis, back pain, knee tumefaction

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IMPACT OF RECURRENT RESPIRATORY TRACT INFECTIONS ON THE DEVELOPMENT OF SECONDARY AA AMYLOIDOSIS

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Introduction: Renal amyloidosis is a condition caused by the deposition of abnormal, insoluble amyloid fibrils in the kidneys, associated with chronic inflammation due to recurrent infections or autoimmune.We present a case of renal amyloidosis secondary to a respiratory tract disease, highlighting relevant clinical aspects. **Case Report:** A 62-year-old man with a medical history that includes a cystic lung disease since childhood, probably genetic in nature, who has had recurrent episodes of infections over time, is brought to the nephrology ward with a diagnosis of sepsis, with pulmonary origin and severe anuric acute kidney injury.After admission, a nephrotic syndrome and a hepatitis B virus infection, probably chronic were identified. The patient was treated with supportive measures, antibiotics, renal replacement therapy,parenteral rehydration, electrolytes and acid-base rebalancing, which led to correction of respiratory symptoms, remission of the inflammatory syndrome and polyuria with improvement f renal function. Subsequently, the attention was focused on the diagnosis of nephrotic syndrome. Immunological tests, including antinuclear antibodies, anti-neutrophil cytoplasmic antibodies, anti-PLA2R antibodies, anti-GBM antibodies and serum protein immunelectrophoresis, were negative. Ultrasonography revealed enlarged kidneys with thickened and hyperechogenic cortex, hepatomegaly. Renal biopsy was performed to identify the etiology of glomerular lesions, and histopathological examination led to the diagnosis of renal amyloidosis, acute tubular necrosis and chronic interstitial nephritis.Bone marrow aspiration was performed by the haematologist and did not show any abnormality. Thus, the diagnosis of renal AA amyloidosis was established. In order to determine the etiology and prognosis, several paraclinical investigations were performed. **Discussions :** The patient has not yet received a clear diagnosis for the childhood-onset lung disease. Clinical tests performed showed superinfected bronchiectasis and right basal pneumonia with suspected pulmonary cysts. Hepatitis B virus infection is being investigated to decide the need for antiviral treatment. After renal biopsy confirmation of the diagnosis of renal amyloidosis the patient returned to investigate the cause of the amyloidosis. The serum immunelectrophoresis, free light chains and the bone marrow aspiration were normal. A cardiac echo doppler was also performed, which did not show any changes suggestive of cardiac amyloidosis, which is important for the patient's prognosis. **Conclusions:** This case emphasizes the need for timely diagnosis, monitoring, and treatment of chronic respiratory infections to prevent secondary amyloidosis. Detection of amyloidosis in a patient with infection-related acute kidney injury underscores the disease's complexity, necessitating a multidisciplinary approach to management.

Keywords: amyloidosis, sepsis, kidney injury

TORSION OF A SUBESROSAL UTERINE LEIOMYOMA A CHALLENGING DIAGNOSTIC OF ACUTE ABDOMEN PAIN: A CASE REPORT

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Introduction: Uterine leiomyoma its the most common benign tumor in women of reproductive age. Fibroids could have different uterine localization like subserosal, intramural and submucosal, and different dimension and symptoms are specifically those characteristics. Various complication can develop, from chronic complication like chronic pelvic pain, abnormal bleeding, dysmenorrhea, infertility to acute complication like torsion or acute degenerative fibroid. Torsion is specifically to subserosal pediculate fibroids and is a rare acute complication which cause acute abdominal pain that require immediately surgical treatment. This acute complication of fibroids is often difficult to diagnose preoperatory and misdiagnosed or prolonged time till intervention could lead to severe comorbidities. **Case Report:** A 38-year-old women without medical history of uterine fibroid is presenting to emergency department with acute lower abdominal pain. Laboratory data showed WBC: 10.62 103 /µL, Neutrophils 8.68 103/µL, Hb 12.1 □□□□□ negative pregnancy test. Due to persistent abdominal pain a CT scan was performed. A nodular image projected on left ovarian fossa with 23/28mm dimension was described and another image nearby without differentiation from the other with 68/70 mm dimension with fluidal characteristics. Right ovary and the uterus were normal described, without others particularities. An exploratory diagnostic laparoscopy was performed and a huge subserosal pediculate uterine fibroma 360 degree torsion was discover. Due to dimension of fibroid (cca.10 x 6 cm) and the torsion a conversion to laparotomy was conducted. A successful myomectomy was performed and patient was discharged 3 days later without complications. **Discussions :** Acute abdominal pain caused by leiomyomas is rarely occurred and others pelvic pathologies should be considerate and because of that its a challenging diagnose. In our patient the CT performed was unable to identify the leiomyoma, but helped to lead to the affected organ, also useful to exclude other possible causes of abdominal pain. Magnetic resonance imaging (MRI) is the most effective modality for visualizing the size and location of the uterine fibroma. **Conclusions:** Despite of paraclinical investigation computerized tomography (CT) the acute abdominal pain still remain one of the most challenging diagnoses among patients who present to the emergency department (ED). Delayed treatment of uterine leiomyoma torsion could led to severe morbidity. Once the diagnose is suspected, the gynecologist must be consulted and surgical intervention should be immediately required .

Keywords: Torsion, Acute abdominal, uterine fibroid, computerized tomography

DIAGNOSTIC LIMITATIONS AND TREATMENT EFFICACY IN A CLINICAL CASE OF KERION CELSI

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Introduction: Tinea capitis refers to a dermatophyte infection usually caused by Microsporum and Trichophyton species. Kerion celsi, an inflammatory variant, predominantly affects children and is frequently misdiagnosed in clinical practice. **Case Report:** A 15-year-old male patient presented to the Dermatology Clinic with a two-month history of an inflammatory, suppurative, impetiginized plaque localized on the right frontoparietal area. The lesion was characterized by yellow crusts and pustules. The patient was previously hospitalized and treated with systemic acyclovir, antibiotics, and corticosteroids due to fever, leukocytosis, and positive bacteriological examination for Staphylococcus aureus. When presented to our clinic, the patient had preauricular and post-auricular reactive lymphadenopathy, but he was otherwise healthy. Wood's lamp examination and mycological cultures were negative. Based on clinical presentation and medical history, the diagnosis of kerion celsi was made. He started systemic itraconazole pulse therapy regimen. Locally, wet dressings for one hour daily and ketoconazole 2% shampoo washings 2-3 times per week were recommended. Twelve weeks post-initiation, following three itraconazole pulses, the clinical cure was achieved, with subsequent replacement of the inflammatory lesion by an alopecic plaque followed by regrowth of hair. **Discussions :** In inflammatory tinea capitis, fungal invasion results may lead to scarring alopecia if treatment initiation is delayed. PCR testing provides a rapid and accurate means of identifying the causative fungal agent. However, its accessibility is limited for many

patients due to financial constraints. Despite challenges in species identification, prompt antifungal therapy initiation is mandatory, given the broad spectrum of modern antifungal agents. Griseofulvin has been considered a first-line systemic agent for managing tinea capitis in children, however, due to its unavailability in most European countries, alternative treatments should be used. **Conclusions:** This case highlights the efficacy of itraconazole in treating kerion celsi in children and the importance of early treatment initiation to prevent the development of cicatricial alopecia.

Keywords: kerion celsi, itraconazole, tinea capitis

THE IMPORTANCE OF CLINICAL EXAMINATION IN HOT FOOT SYNDROME – A CASE REPORT

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Introduction: Pseudomonas aeruginosa, a Gram-negative pathogen found in water and soil, but also opportunistic, is responsible for self-limited skin-related manifestations when directly inoculated. **Case Report:** A 19-year-old female patient, with no other comorbidities, presented to the Dermatology Clinic with a sudden onset of inflammatory nodules on both plantar regions. The patient reported recent exposure to a private pool, one day before the eruption. Her companions expressed the same skin lesions. The dermatological examination identified multiple erythematous, tender nodules, indistinctly demarcated and located on the mechanically stressed areas of both plantar regions. She was afebrile and otherwise healthy. No lymphadenopathy was observed and the laboratory investigations were within limits. Given the absence of pustules in the affected area, the bacteriological swab examination was not performed. Based on the dermatologic exam, clinical and laboratory findings, we established the diagnosis of hoot foot syndrome. Treatment with systemic non-steroidal anti-inflammatory drugs (Ibuprofen 800 mg/day) and local cooling dressings led to complete remission of symptoms within seven days. **Discussions :** In hot foot syndrome the diagnose is established clinically. The differential diagnosis includes idiopathic eccrine hidradenitis, chilblain lupus, vasculitis, erythema multiforme, insect bites, and many other inflammatory conditions. Recognition of the disease in the early presentation is essential to avoid unnecessary investigations, hospitalization, and systemic antibiotic treatment. **Conclusions:** Hot foot syndrome is a self-limiting disease, affecting mechanically stressed areas of the soles and this case highlights the importance of its early recognition. Chlorination of pool waters is essential for preventing such outbreaks.

Keywords: Pseudomonas aeruginosa, hot foot syndrome, plantar nodules

STUDY OF BONE FRACTURES AND BISPHOSPHONATE TREATMENT IN PATIENTS DIAGNOSED WITH SPINAL MUSCULAR ATROPHY

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Introduction: Spinal muscular atrophy (SMA) is a progressive neuromuscular disease with autosomal recessive inheritance. Bone mineral content in SMA is typically lower than in other neuromuscular diseases, increasing the risk of pathological fracture. Bisphosphonate treatment has been shown to be effective in the treatment of osteoporosis, and it is also used in patients with SMA according to guidelines. However, there are few data in the literature on the effect of bisphosphonate on osteodensitometry (ODM). In this study we would like to present the cases of patients where a pathological fracture was detected and/or bisphosphonate treatment was applied. **Case Report:** In a previous study, we analysed data from 57 children diagnosed with SMA treated at the Pediatric Center Tűzoltó street Department of Semmelweis University, in whom we also assessed the ODM Z score and bone mineral content. From these, we have now selected 9 children based on the fact that they had received bisphosphonate treatment and/or had a bone fracture. A total of 4 children in the group had a bone fracture and 6 children had received bisphosphonate treatment. All these children received disease-modifying therapy, and changes in ODM Z-score values, beta-crosslaps and osteocalcin hormones were followed in relation to years of treatment. **Discussions :** 1 of the 4 patients who suffered a fracture subsequently received bisphosphonate treatment after the fracture, in which case the ODM Z score was also severely reduced. The other children also showed reduced scores compared to the mean before treatment and in the years of treatment, with an average of -

2.88 before treatment, -2.07 in the first year of treatment and -2.70, -2.60, -2.27, -4.30 thereafter. After bisphosphonate treatment, no fractures occurred in any of the cases during the follow-up. **Conclusions:** Pathological bone fractures can have a major impact on the quality of life of patients, so it is important to monitor these, as well as bone density and other secondary consequences. This could be important because currently the protocol in Hungary recommends using bisphosphonate treatment only after a pathological bone fracture has occurred. Thus, these results may be useful in the future, even in modifying the therapeutic protocol.

Keywords: spinal muscular atrophy, bisphosphonate treatment, pathological fracture, osteodensitometry

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RECURRENCE OF HEPATIC ECHINOCOCCOSIS - CARDIAC HYDATID CYST

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Introduction: It is important to note that the diagnosis of cardiac echinococcosis requires a comprehensive evaluation that includes clinical symptoms, imaging studies, and laboratory tests. Given the disease's complexity, a multidisciplinary approach is frequently required for accurate diagnosis and treatment. **Case Report:** We present the case of a 43-year-old woman who was admitted to the Cardiology clinic multiple times for atypical chest pain, dyspnea, and fatigue, with a negative coronary angiography and no echocardiographic structural changes. From the personal medical history, we recall multiple hepatic hydatid cysts operated (approximately 12 years previously). At the present admission, the patient complains of atypical chest pain, accompanied by exertional dyspnea. The ECG trace showed ventricular bigeminy and no other significant changes. An echocardiogram is performed, revealing a 1.89x1.40 cm cystic process at the level of the basal interventricular septum, extending towards the right ventricle and the anterior wall of the aorta (PLAX). Given the patient's medical history, echocardiography, and laboratory results (marked eosinophilia 8.2%), the suspicion of cardiac echinococcosis is raised. Furthermore, cardiac MRI was performed and peripheral contrast enhancement was observed in the late contrast enhanced series, indicating a hydatid cyst. A total IgE and anti-Echinococcus granulosus antibodies IgM were tested, and both were positive. A head-thorax and abdomen computed tomography examination ruled out other cystic locations that could explain the laboratory results. In the postoperative preparation, the multidisciplinary team of cardiologist, cardiovascular surgeon, and infectious disease specialist decides on Albendazolum treatment (2x400 mg/day) for 2 weeks. However, after this period, the patient refuses surgical intervention. And it is periodically monitored by a cardiologist and an infectious disease specialist to ensure that the pathology remains stable and that no new outbreaks occur. **Discussions :** Cardiac echinococcosis is uncommon, with a prevalence of less than 2%. The diagnosis in this patient was typical, with a cystic appearance on echocardiography, emphasizing the importance of imaging in the diagnosis; however, its location was unusual, with the majority of hydatid cysts described to be located at the level of the free wall of the left ventricle. Surgery is the main method of curative treatment. **Conclusions:** Despite the fact that Albendazolum has temporarily halted the evolution of the disease, the only curative treatment remains surgical intervention, which is completed by the anti-parasitic treatment.

Keywords: albendazolum, cardiac echinococcosis, imaging, surgery.

UTILIZING MULTIFACTORIAL ASSESSMENT IN DIAGNOSING PULMONARY EMBOLISM: A CASE REPORT FROM THE EMERGENCY DEPARTMENT

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Introduction: Pulmonary embolism (PE) poses a significant diagnostic challenge due to its diverse clinical presentations and potentially life-threatening consequences. Integrating multiple diagnostic tools such as the Wells Score, PERC rule, and age-adjusted D-dimer criteria offers a comprehensive approach to improve diagnostic accuracy and guide management decisions in suspected cases of pulmonary embolism. **Case Report:** We present a case highlighting the management of a 35-year-old patient who presented at the emergency department with atypical symptoms, including right hemithorax pain initially localized between the shoulder blades but radiating towards the abdomen and right shoulder, intensified by physical activity. A definitive diagnosis remained elusive despite an initial assessment and negative results for common respiratory infections. However, further investigation following the use of the Wells score for pulmonary embolism and the PERC rule revealed significant

pathological modifications on the contrast-enhanced CT scan □□ marked filling defect observed in the segmental branches of the right lower lobe and the lower lobar pulmonary artery, suggestive of pulmonary embolism. Immediate management involved transfer to intensive care, initiating anticoagulant therapy, administering antibiotics, and close monitoring. Further testing confirmed the presence of rhinovirus. The patient was subsequently admitted to the infectious diseases department for isolation and targeted treatment. This case underscores the indispensable role of personalized medicine, integrating the Wells score, PERC rule, and tailored treatment strategies, in effectively managing complex respiratory presentations, particularly within the emergency department. **Discussions :** This case report emphasizes integrating multiple diagnostic criteria in evaluating suspected PE cases. Clinicians can enhance diagnostic accuracy and optimize patient management by considering various clinical factors and utilizing established scoring systems. The challenges associated with interpreting atypical presentations and the importance of individualized patient assessment are discussed. **Conclusions:** The comprehensive assessment of patients suspected of PE involves the integration of various clinical parameters and diagnostic tools. In this case, multifactorial assessment, including the Wells Score, outlines its importance in guiding diagnostic decisions and improving patient outcomes. A holistic approach to PE diagnosis that considers the diverse clinical spectrum and incorporates validated scoring systems is essential for optimizing patient care.

Keywords: pulmonary embolism, Wells Score, emergency departament

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UNDERSTANDING THE HISTOPATHOLOGICAL INSIGHTS OF NEUROENDOCRINE TUMORS: A CASE REPORT

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Introduction: Neuroendocrine tumors are a rare and diverse group of tumors establishing a link between the nervous and endocrine system, with varying degrees of hormone production and organ involvement. Understanding their pathology is crucial for effective diagnosis and treatment. **Case Report:** We report a case of a 68-year-old patient who presented with acute surgical abdomen to the emergency department. Imagistics revealed descending and sigmoid diverticulosis without inflammatory signs. Subsequently, exploratory laparotomy identified a mesenteric tumor formation with multiple adhesions and fluid collections. Segmental resection of the small intestine and appendix was performed, with the two surgical specimens delivered for histopathological examination. Gross evaluation revealed a paraintestinal nodular mass of 460x30mm adherent to both mesentery and intestinal wall as well an adjacent flattened mass of 6x3mm dimensions similar to the previous one was found. Microscopic evaluation revealed a uniform proliferation of medium size cells, showing round to oval nuclei with salt and pepper chromatin, with 6 mitoses/mm², infiltrating the entire ileal wall with direct invasion of the serosa as well an appendicular metastasis was identified. Immunohistochemical evaluation revealed positivity for Synaptophysin and Chromogranin A, and negativity for CD56, with a Ki-67 index of 1-2%. Four lymph node metastases along with lympho-vascular and perineural invasion were also identified. The lesion was classified as a well-differentiated neuroendocrine tumor with an intermediary histological grade (G2). **Discussions :** Histopathological evaluation plays a crucial role in diagnosing neuroendocrine tumors regarding the three major criteria for tumor classification: grading (Ki-67 index and mitotic rate), differentiation, and TNM staging. Immunohistochemical staining including Synaptophysin, Chromogranin A, and CD56, plays a pivotal role in confirming neuroendocrine differentiation. Positive staining for these markers aids in guiding clinical decisions regarding patient management, including therapeutic strategies and prognostic assessment. **Conclusions:** Neuroendocrine tumors pose a clinical challenge due to their rarity, varied presentations, and reliance on hormonal symptoms. The definitive diagnosis, often clinically elusive, is reliably provided only through histopathological examination, emphasizing it's crucial role in management of these complex cases.

Keywords: neuroendocrine tumor, salt and pepper, neuroendocrine markers, tumor classification

ONE CT, MULTIPLE TUMOURS: BENIGN OR MALIGNANT?

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Introduction: One of the most frequent urogenital cancers is represented by renal cell carcinoma (RCC), with a mortality rate of 30-40% due to its fast metastasis, with only 20% of the patients being cured by nephrectomy. We present a RCC' patient predisposition to develop other types of cancer. **Case Report:** A 65-year-old man was referred to our unit for further diagnosis work-up. A computer tomography (CT) showed a subcapsular left kidney mass of 46/62/56 mm, hypervascular, with no invasion of the caliceal system or the hilar vascular structures; the carcinoma has expanded in the posterior pararenal space penetrating the capsule. Furthermore, a calcified cystic cluster turned up in the cephalo-uncinate area of the pancreas along with the dilatated Wirsung and the secondary ducts which raised the suspicion of a cystadenoma or an IPMN (Intraductal Papillary Mucinous Neoplasm). The CT also emphasized a lesion of the L4 vertebral body, and the scintigraphy evidenced only signs of osteosclerosis. An EUS FNA (endoscopic ultrasound with fine needle aspiration) of the renal tumour was further performed and the pancreatic IPMN had no elements of malignancy. Histopathology confirmed a cT4N0M0 renal clear cell carcinoma. Due to the tumoral stage, a radical laparoscopic nephrectomy was performed. **Discussions :** The widespread application of CT and EUS for other indications has led to increased detection of renal and pancreatic tumors as an incidental finding. These tumors are typically smaller than those that produce symptoms and are more likely to be resectable. The frequency of multiple primary tumors among all cases of malignancy has been reported as 1 to 3%. The frequency of pancreatic cancer in association with cancer of other organs is estimated to range from 1% to as high as 20%, with malignancies predominately of the stomach, colon, thyroid, and genitourinary tract. Second malignancies reported to be associated with RCC include Non-Hodgkin's lymphoma, multiple myeloma, chronic lymphatic leukaemia, melanoma and cancers of the bladder, prostate, breast, rectum, and lung with an incidence that varies from 5 to 27%. **Conclusions:** There has only been infrequent reporting of synchronous or metachronous tumors of the pancreas and the kidney. The patient remained under supervision every 6 months. The latest report currently highlights no other signs of malignant tumours in the body, the results of the tests performed both at the level of the pancreas and at the level of the bone system concluding this aspect.

Keywords: renal cell carcinoma, nephrectomy, IPMN, EUS FNA

MEMBRANOUS GLOMERULONEPHRITIS: THE CHALLENGE OF PINPOINTING CAUSE AND TREATMENT

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Introduction: Membranous glomerulonephritis (MGN) is a kidney condition marked by immune damage to the filtering membranes, leading to thickening and symptoms of nephrotic syndrome. While often idiopathic, it can also stem from systemic diseases and results in variable outcomes, from asymptomatic to severe renal issues. **Case Report:** A 60-years-old women presented at the hospital with dyspnea, lower extremity edema, fatigue, weakness, and lack of appetite. At admission, the patient was conscious, hemodynamically stable, time and space oriented. Physical examinations and laboratory tests revealed bilateral basal crackles requiring intermittent oxygen therapy, condition of overhydration with leg swelling presenting a positive Godet sign, significant proteinuria and albuminuria, severe hypoalbuminemia, an inflammatory syndrome evidenced by elevated CRP and leukocytosis and leukocyturia. A urinalysis returned a positive result for Enterococcus Faecium, leading to the initiation of Linezolid treatment. Moreover, the diagnosis of nephrotic syndrome was established, and the treatment of complications was started due to the increased risk of thrombosis and the investigation into its cause. An etiological workup was performed: immunological tests indicated decreased IgG levels and elevated PLA2R antibody levels, viral tests for HBV, HCV, and HIV returned negative, paraneoplastic screening showed increased CA 125 and CEA tumor antigen levels. During the neoplastic screening, a chest radiography was performed, revealing an oval opacity on the left lateral thoracic area and a small left pleural collection; and a thoracoabdominal CT scan with contrast (renal function being unaltered) that describes a parenchymal mass in the left lung with variable thickness, alongside band-like fibroatelectatic changes pulling the hilum upwards and spiculated

bronchopneumonic foci. These findings raise the suspicion of mesothelioma. **Discussions :** Considering the etiological workup results, starting immunosuppressive therapy was delayed. Despite the detection of aPLA2R antibodies, the diagnosis of idiopathic MGN questioned by the suspicion of mesothelioma, potentially pointing to a paraneoplastic cause of the disease and necessitating a different treatment strategy. In order to determine the appropriate treatment plan, it was decided to perform a pleural biopsy to establish a definitive diagnosis, and until the results were obtained, nonspecific treatment of the nephrotic syndrome with ACE inhibitors, SGLT2 inhibitors, and anticoagulant - LMWH was continued. **Conclusions:** Cases like this demonstrate the need for comprehensive investigation in membranous glomerulopathy, especially when signs suggest secondary causes like paraneoplastic syndromes. APLA2R antibodies are a piece of the puzzle, but not the whole picture - a thorough workup ensures the most appropriate treatment strategy.

Keywords: Nephrotic syndrome, PLA2R antibody, Hypoalbuminemia, Mesothelioma

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THE EFFICIENCY AND SAFETY OF A BIOSIMILAR AFTER MULTIPLE TREATMENTS WITH ORIGINAL BIOLOGICS IN A RHEUMATOID ARTHRITIS CASE

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Introduction: Rheumatoid arthritis (RA) is an immune-inflammatory disease, with a complex pathogenesis, characterized by symmetrical, destructive, and deforming polyarthritis of the limbs and multiple systemic manifestations, unfortunately its etiology is still unknown. The aim of the presentation is to highlight the role of a biosimilar in terms of its effectiveness based on therapeutic response criteria formulated by EULAR. **Case Report:** We present the case of a 74-year-old patient diagnosed with rheumatoid arthritis (1982), with a history of hypertension, hypothyroidism, and viral hepatitis B. She receives as part of her chronic treatment medication based on antihypertensive drugs, methylprednisolone, levothyroxine, NSAIDs and conventional and biologic antirheumatic medication. It has been observed that over time, the antirheumatic treatment proved ineffective both for csDMARDs and for the administration of biologic treatment initiated in 2003, with Infliximab, then gradually replaced with Etanercept, respectively Rituximab. Finally, the last therapeutic option (Rituximab) has been replaced by Hyrimoz (Adalimumab biosimilar), which initially led to a change in the DAS28 score from a value of 7.08 (September 2019) to a value of 4.78 (May 2020), ultimately reaching a value of 3.01 at the last medical visit conducted in December 2023. **Discussions :** Following the analysis of both DAS scores and the patient's symptomatology, we observe a significant improvement in the activity of her underlying disease. The EULAR criteria for therapeutic response correspond to a good response because the improvement in DAS28 was over 1.2 points, and the final score is below 3.2. **Conclusions:** Biologics are effective drugs for treating RA. Regarding biosimilars, these are drugs that do not have clinically significant differences compared to the corresponding reference biologics. They are tested to ensure that they work identically and are as safe as the original drugs. For rheumatic diseases, only a few biosimilar drugs are currently available. However, biosimilars are becoming an increasingly important part of treatment as more options become available.

Keywords: RA, DAS28, Hyrimoz, biosimilar

A PECULIAR CASE OF EXTENSIVE INFECTIVE ENDOCARDITIS NECESSITATING VALVE REPLACEMENT IN A YOUNG ADULT WITH NO RISK FACTORS

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Introduction: Infective Endocarditis (IE) is an uncommon condition with a poor prognosis, high morbidity and mortality, with an incidence of approximately 5 per 100,000, per year. It usually presents in elderly patients with multiple comorbidities, in young patients via an oral infective route, or intravenous drug users. Given the increasing complexity of diagnosis and management, a multidisciplinary approach is recommended in specialty literature. Antibiotic therapy and surgery remain the mainstays of treatment. **Case Report:** We present the case of a 24 year old female patient - a university student with no significant past medical history, minor dental work 4 months prior to presentation, allergic to Penicillin and Streptomycin, admitted to the Royal Hampshire County Hospital following 5 days of fever, abdominal pain, nausea, headache and loss of appetite, as well as painful peripheral lesions. On

admission, she was found to be septic, with raised inflammatory markers. Janeway lesions, splinter haemorrhages and Osler nodes were noted, with unremarkable cardiovascular examination. In light of the presentation and allergies, she was initially started on broad spectrum antibiotics to cover for IE. This was later revised with the sensitivity data. Staphylococcus Aureus was found on blood cultures. On Transthoracic Echocardiogram (TTE) no convincing evidence of vegetation was found. Given the history and presentation and the normal findings on TTE, the initial impression was of a vasculitis. However, a Transoesophageal Echocardiogram (TOE) showed a large mitral vegetation extending into the left chambers, with a perforated P3 and severe regurgitation. She was transferred for urgent Mitral Valve replacement, which was completed without complications. Lifelong anticoagulation was started, along with a 6-week course of antibiotics. She had been recovering well when seen 2 months post-operatively. **Discussions :** The evolution of epidemiology and presentation of IE, along with updated methods of diagnosis and treatment has led to increasing complexity in the management of these types of patients. Our patient is young and otherwise healthy and was therefore able to compensate well for a prolonged time before the acute septic presentation with a level of vegetation requiring surgical intervention. **Conclusions:** IE is a severe condition that may present non-specifically in young otherwise healthy individuals. A multidisciplinary approach is important, with involvement from Cardiology, Infectious Diseases, and Cardiothoracic Surgery. A consideration should be made as to the accuracy of TTE vs TOE findings in the context of presentation, blood cultures and response to treatment.

Keywords: Infective Endocarditis, Valvular vegetation, Mitral valve replacement, Staphylococcus Aureus

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THE ROLE OF INFECTIONS IN PAVING THE WAY FOR LIVER FAILURE IN CIRRHOSIS: CASE REPORT

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Introduction: Cirrhosis is the fourteenth most common cause of deaths worldwide. It is characterized by the irreversible hepatic tissue fibrosis with loss of function of the liver, which leads to several systemic complications such as portal hypertension, esophageal varices, ascites, hepatocellular carcinoma etc. **Case Report:** We present the case of a 70 years-old man, former smoker and heavy drinker, recently diagnosed with alcoholic liver cirrhosis, low urinary tract infection in treatment with Levofloxacin and sinus tachycardia. He presented to the medical service for loss of appetite and increased volume of the abdomen due to ascites. The ultrasound revealed hepatomegaly, large volume ascites and an inhomogeneous, micronodular, with irregular outline liver. In addition, the thoraco-abdominal-pelvic CT scan showed liver with cirrhotic-type morphology, mild perigastric, perisplenic, omental varices, large ascites, splenomegaly and a tumor at the level of the body and tail of pancreas. For the diagnosis of pancreatic tumor an endoscopic ultrasound (EUS) was performed and a polycystic pancreatic caudal lesion was found. The ascites analysis showed spontaneous bacterial peritonitis (SBP) with 591 polymorphonuclears, for which antibiotics, antifungals and probiotics were initiated. During the follow up the serum creatinine level increase treatment with Terlipressin and Albumin was started, which lead to a favorable evolution of the hepatorenal syndrome. The patient was discharged after 4 weeks with significant improvement of the liver function, good response of ascites to diuretics and encephalopathy score improvement. The patient returned after one month with jaundice and 10 daily watery stools. Lab test showed severe acute on chronic liver dysfunction and Clostridium difficile infection. Vancomycin treatment was started. The number of stools decreased but the patient evolution was unfavorable, with progressive liver failure and he died after 2 weeks of hospitalization. **Discussions :** Ascites, hepatorenal syndrome and SBP indicate an advanced and decompensated stage of cirrhosis. In this case, the prognosis suggested by studies estimates a low rate of ten years survival. Any type of infections might decompensate the liver function and promote the onset of acute on chronic liver failure. This association might dramatically increase the mortality risk in these kind of patients. **Conclusions:** The aim of this case report is to emphasize the wide range of complications that can be generated by alcoholic cirrhosis and the importance of dysbiosis due to strong antibiotherapy to generate further complications in an already frail patient.

Keywords: cirrhosis, ascites, liver failure, infections

REVEALING THE MALIGNANT NATURE OF AN ATYPICAL RENAL CYST USING CONTRAST-ENHANCED ULTRASONOGRAPHY. A CASE REPORT.

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Introduction: Contrast-enhanced ultrasonography (CEUS) is a non-invasive clinical tool which helps us determine the benign or malignant nature of a complex cystic renal mass. We will present a clinical case with a focal renal lesion that, at first glance, appears to be a simple cyst, but, after CEUS examination, a malignant nature was revealed. **Case Report:** A 55-year-old woman with a history of type 2 diabetes, autoimmune thyroiditis, hypercalcemia, hyperparathyroidism and recurrent urinary tract infections came to the Nephrology Department of the Mures County Hospital. She complained of peripheric neuropathy predominant during the night. Laboratory tests revealed positive nitrites in urine, bacteriuria, hematuria, leukocyturia; uACR 121 mg/g, Hg 15.1 g/dL, total calcium 11.4 mg/dL, glucose 108 mg/dL, PTH 145.8 pg/mL. Ultrasound described in the left kidney a transonic lesion suggestive for a cyst and in the right kidney two calyceal stones, 5- and 6-mm length and two focal lesions resembling cortical cysts. One of them, though, had an inhomogeneous content, suspecting an atypical or malignant cyst. Microvascular imaging ultrasound (microV) of the suspected cyst revealed a positive vascular signal located in the periphery and, partially, inside the lesion. Therefore, we decided to do a CEUS examination. We administrated 1,6ml iv contrast solution and after 11 seconds the renal cortex enhanced normally, but the lesion enhanced only at its periphery. The center of the lesion also began to enhance and 20 seconds after contrast's administration the enhancement was uniform with the rest of the parenchyma. The wash-out started 30 seconds after contrast's administration and this strongly suggested a malignant character of the lesion. **Discussions :** The 2017 updated guideline for extrahepatic CEUS recommends its use in renal focal lesions with the appearance of atypical cysts Bosniak classes 2F, 3 or 4. Although, renal cysts are very frequent and the presence of two cysts doesn't usually raise diagnostic problems the characteristics that made us suspicious in this case were the cyst atypical behavior in microV examination and the presence of micro-vascularization in CEUS examination. Those findings together with the wash-out pattern strongly suggest the malignant character of the cyst. **Conclusions:** CEUS is an accessible, non-invasive and non-toxic examination, which can differentiate between two focal renal lesions with a similar appearance on ultrasonography, detecting the mass with a highly malignant character.

Keywords: CEUS, microV, wash-out, malignant cyst

INSIGHTS INTO CHRONIC URTICARIA: A CASE STUDY

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Introduction: Urticaria is characterized by the sudden appearance of transient, migratory, pruritic, and papular-erythematous lesions. It can be triggered by various allergens, such as certain foods, medications, insect stings, pollen, or animal epithelium. These triggers result in the production of IgE immunoglobulin antibodies leading to the degranulation of mastocyte cells and release of histamine, causing the aforementioned specific symptoms. **Case Report:** We present the case of a 33-year-old male patient, known to have allergic rhinitis (treated with intranasal corticosteroids), and hypersensitivity to grass pollen, dog epithelium, and cat epithelium. He reports the monthly occurrence of multiple episodes of urticaria starting in 2020. The lesions exhibit clear demarcation and erythematous appearance, manifesting on his limbs, torso, abdomen, and face. These symptoms improve with the administration of antihistaminic treatment. The full blood count did not reveal any significant modifications. In order to assess IgE allergic sensitization, an ALEX MADx test was performed, showing a very high susceptibility to the pollen of gramineae (Phl p1, Phl p2, and Phl p 5.0101), mites (particularly Der f2, Der p2), cat epithelium (Fel d1), and wheat (Tri a 19). The "Tri a 19" allergen (a member of the gliadin family of proteins) is relevant in this case, often being associated with skin reactions when repeated wheat consumption is followed by co-factors such as physical effort. **Discussions :** Multiple laboratory tests have been conducted to rule out possible causes of urticaria. The PCR stool test came back negative for protozoa, worms, and microsporidia. Tissue transglutaminase IgA antibodies and IgA anti-endomysial antibodies are both negative, ruling out celiac disease. Testing for Hepatitis B and C antibodies yielded negative results. The patient has additionally tested positive for Helicobacter

pylori and is undergoing treatment. Due to the high IgE levels associated with the "Tri a 19" antigen, a specialized diet that excludes both wheat and gluten has been recommended. If the episodes persist even while maintaining a restrictive diet, then the diagnosis of chronic spontaneous urticaria may be considered. **Conclusions:** The present case highlights the intricate interplay between allergic sensitization and the manifestation of urticaria symptoms while also underlining the importance of a tailored diet for preventing future episodes.

Keywords: Urticaria, tri a 19 allergen, hypersensitivity, restrictive diet

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STEPS TO RECOVERY THE NUTRITIONAL INTERVENTION AND EVOLUTION IN A PATIENT WITH ANOREXIA NERVOSA: A CASE STUDY

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Introduction: Anorexia nervosa is a psychiatric disorder with an unknown etiology that is characterized by an individual's extreme concern for self-image and body weight, severe dieting, and weight loss, all this while denying the severity of their low body weight. According to the statistics, 1 in 100 adolescents struggle with anorexia nervosa and it's the third most common chronic illness diagnosed amongst them. **Case Report:** The case of a 16-year-old teen girl is being presented, who was brought to the dietitian to seek help, by her mother, after previously being admitted to the hospital and diagnosed with anorexia nervosa. Her first InBody assessment showed a total of 45kg body weight, with a BMI of 15.6 and 3.1kg of body fat mass, which was most concerning. She also presented with a lack of energy, amenorrhoea, constipation, stomach pain, an unhealthy relationship with food, and the fear of gaining more weight. **Discussions :** The main goal of the nutritional intervention was the restoration of a healthy body fat mass while building a better relationship with food and body image. This is an ongoing collaboration that started in December 2023, with 1 on 1 individualized assistance with the patient, every two weeks. We focused on introducing new foods, nutritional education, and daily monitoring with the help of a food diary and after a few months the patient reached a total body weight of 53.2kg, with a BMI of 18.4 and 9kg of body fat mass. It's important to mention that as dietitians we were constantly communicating with the patient's doctor, therapist as well as family. After a few months, the patient's health was significantly restored, and her relationship with food and body image was considerably improved, thanks to a multidisciplinary approach. **Conclusions:** This case study exemplifies the critical role of nutritional intervention alongside psychological and medical support for teens with eating disorders. The cooperation between the dietitian, medical specialists, psychologist, and the patient's family is essential for the patient's well-being but it doesn't assure linear progress.

Keywords: nutrition intervention, anorexia nervosa, multidisciplinary team

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COMPLICATIONS OF PULMONARY ABSCESS INVOLVING ENTEROCOCCUS RAFFINOSUS

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Introduction: Pleuritic pain is characterized by sharp chest pain that worsens with breathing, coughing, and sneezing; followed by shortness of breath due to painful breathing. It is a common symptom in the Emergency Department, associated with mild to moderate pathologies such as pleurisy, pneumonia, or even intercostal neuralgia. However, it can cover up life threatening diseases such as lung abscess. The lung abscess is defined as a localized accumulation of pus and necrotic debris within the lung parenchyma, leading to cavity formation. Usually, symptoms are nonspecific including fever, fatigue, weight loss, loss of appetite, productive cough, and pleuritic pain. When the infective process extends to the visceral pleura, complications may arise, presenting as pyopneumothorax or pleural empyema, ultimately predisposing the patient to the development of a pleurocutaneous fistula. Our goal is to highlight its concealed clinical nature and the importance of early diagnosis and treatment of lung abscesses, to prevent complications. **Case Report:** We present the case of a 35-year-old male patient with a medical history of epilepsy and tuberculosis. Seeking emergency care on June 24, 2023, the patient reported right laterothoracic pain exacerbated during deep inhalation, productive cough persisting for one week, and fever. Subsequent investigations were conducted, including laboratory analyses, thoracic radiography, and CT. **Discussions :** Paraclinical assessments revealed indicators of inflammation, including leukocytosis,

neutrophilia, elevated CRP, and mild anemia. Radiologically, two cavitary lesions with air-fluid levels were identified in the posterobasal and anterior lung fields, suggestive of lung abscesses. Simultaneously, an extensive hydroaeric accumulation is observed at the right pleural cavity, concluding the depiction of pyopneumothorax. The accumulated pus and necrotic debris at this anatomical juncture establish communication with the lateral thoracic wall via a pleurosubcutaneous fistula discerned at the IV/V intercostal spaces. Thus, a massive subcutaneous emphysema develops with extension to the right posterior thoracic wall and right laterocervical region. Therapeutic intervention aimed at mitigating the risk of septic shock and restoring physiological parameters to normalcy is imperative. This includes empirical broad-spectrum antibiotic therapy, blood culture, and correcting hydro-electrolytic and acid-base imbalances. Specialized surgical treatment revealed associated complications, including phlegmon of the thoracic wall and extensive necrotizing thoracolumbar fasciitis. Furthermore, bacteriological analysis of the evacuated pleural fluid identified the presence of Enterococcus Raffinosus. **Conclusions:** Unmanaged lung abscess initiates a sequence of complications that self-perpetuate, leading to a substantial disruption of the patient's physiological equilibrium and ultimately culminating in septic shock.

Keywords: Lung abscess, Pyopneumothorax, Enterococcus Raffinosus

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STREPTOCOCCAL TOXIC SHOCK SYNDROME: A PLOT TWIST IN DIAGNOSIS AND TREATMENT

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Introduction: Streptococcal toxic shock syndrome (STSS) is an acute and rare, multisystem and toxin-mediated disease associated with invasive group A Streptococcus. Shock and multiple organ failure are likely to develop in the early stages of its clinical course. It is associated with a substantial increase in mortality rate. This case highlights the significance of accurate establishing of the etiology of shock state in providing adequate treatment. **Case Report:** We report a case of a 23-year-old female patient with no previous medical history who was admitted to the Clinical Infectious Diseases Hospital with fever syndrome, dry cough, chills, myalgia, arthralgia and severe dysphagia that has started 4 days before. Previously, the patient presented to the emergency department, where the CBC results revealed a marked inflammatory syndrome, anemia and moderated lymphopenia. Chest X-ray showed no pathological changes. The suspicion of influenza was raised (household members infected), but the confirmation of the diagnosis could not be performed due to the lack of Rapid Influenza Diagnostic Tests. Oseltamivir antiviral treatment was administrated (two doses) and generalized and periorbital edema appeared. Afterwards, during the admission to the Infectious Diseases Hospital, the patient presented overall deteriorated condition, low blood pressure (62/46 mmHg), tachycardia (112 bpm), diarrhea and respiratory failure. She was transferred then to the ICU where she began treatment with crystalloid solutions and Noradrenaline, being hemodynamically unstable. The hemodynamic monitoring parameters were suggestive for septic shock. Additional investigations were performed and Multiplex-PCR analysis confirmed Influenza type A infection. Streptococcus pyogenes was isolated from pharynx, blood culture and sputum as well. Subsequently, a chest Angio-CT scan revealed a massive left pneumonia associated. Following the diagnosis, she was treated with Oxygen therapy, beta-blockers, anticoagulants, antiviral and antibiotic therapy. The patient was discharged 15 days later with an improved condition. **Discussions :** In our case, Oseltamivir induced an allergic reaction that combined with the other shock-like signs, was first interpreted as anaphylaxis. There are some important differences between these two types of shock in terms of management since STSS requires antibiotic therapy and appropriate examinations. Furthermore because of the high mortality rate (30-70%), medical malpractice is often suspected. **Conclusions:** Identification of STSS can be challenging. About 50% of the sources of infection are unclear and symptoms are unspecific. Early identification of the disease and proper antibiotic therapy as well as rapid control of the source of infection are essential to reducing the mortality rate of this disease.

Keywords: Streptococcal toxic shock syndrome, group A Streptococcus, infection, antibiotic treatment

BENEFITS OF METHOTREXATE/VINORELBINE CHEMOTHERAPY FOR DESMOID FIBROMATOSIS: A CASE REPORT

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Introduction: Mesenteric Fibromatosis (MF) is a rare proliferative fibroblastic lesion of the small intestinal mesentery, characterized by difficulties in diagnostic and therapeutic approaches. It constitutes 8% of all desmoid tumors and represents 0.03% of all neoplasms. It has a genetic component, being part of Gardner's syndrome. However, it is histologically benign but it may invade locally and recur after excision. The presenting features of MF are asymptomatic abdominal mass, abdominal discomfort, bowel or ureteral obstruction, intestinal perforation, fistulas. **Case Report:** In June 2021, an 18-year-old woman, with a family history of Familial Adenomatous Polyposis (FAP), presents with an intestinal obstruction caused by a proliferative mass located on the mesentery, for which terminal ileum, cecum, and ascendant colon are resected. Histopathological examinations confirm the diagnosis of MF. A postoperative MRI reveals remaining tumors in the area of the spleen and the left psoas major. Consequently, a colonoscopy is undertaken, displaying a total stenosis of the transverse colon, resulting in the impossibility of surgically restoring the digestive continuity. As a first-line treatment, chemotherapy with VAC (vincristine, actinomycin-D, and cyclophosphamide) is initiated. After 6 cycles, an MRI outlines one more time the impossibility of operating the tumors. Therefore, the second-line treatment, with Methotrexate (MTX) and Vinblastine is chosen. After 2 cycles, the treatment is switched to MTX/Vinorelbine(VNL) per os, considered to have a better efficacy. In July 2021, another MRI showcases a new mesentery tumoral mass (level of L1-L2 vertebrae) undistinguished from the proper small intestine, while the previous one diminished in size. The decision is taken to remove both masses, but tumoral formations persist on the left abdominal wall. These are interpreted as stationary evolution of the disease and the treatment with MTX/VNL is preserved. **Discussions :** For young patients with unresectable tumors, radical surgery and radiotherapy are inapplicable, due to long-term complications. Hence, chemotherapy with vinorelbine combined with low-dose methotrexate was an optional choice for local control. **Conclusions:** The tendency for recurrence makes the treatment of these rare fibrous tumors challenging, multidisciplinary approach being needed with long-term follow-up. Furthermore, VNL was shown to be better tolerated than vinblastine, with lower toxicity rates, especially neurotoxicity.

Keywords: Mesenteric Fibromatosis, Methotrexate/Vinorelbine treatment, Vinblastine

A MEDICAL SYMBIOSIS: AUTISM AS AN EARLY SYMPTOM OF CANCER PREDISPOSITION SYNDROMES

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Introduction: The phosphatase and tensin homolog (PTEN) gene is an important element involved in cancer suppression and brain development. Constitutional mutations affecting this gene produce several conditions, collectively named PTEN hamartoma tumor syndromes (PHTS), among which, Cowden Syndrome (an autosomal dominant pathology) is the most common. In addition to hamartomas and increased risk of different cancer types, PTEN anomalies are characterized by a range of non-tumoural phenotypes such as developmental delay and autism spectrum disorder (ASD) with a prevalence of 25%. **Case Report:** This case presents a 9-year-old male patient with a family history typical for PHTS (maternal uncle with macrocephaly), recently diagnosed with a 2cm right thyroid nodule (under treatment). The patient displays characteristic symptoms of Cowden syndrome: macrocephaly, hyperpigmentation of the glans, growth retardation, and premature puberty. Moreover, he is known for various types of neoplasms: axillary hamartomas and right testicular lipomas (previously excised). When it comes to cognitive disorders, the patient developed ASD starting from the age of 1 year and 6 months, with the language and motor functions being the most affected (he started using simple words around 2 years old and simple propositions around 4 years old). Furthermore, the patient is currently undergoing Applied Behaviour Analysis (ABA) therapy, with no pharmaceutical treatment, showing signs of improvement. Considering the particular phenotype, an NGS-21 gene panel was conducted. The molecular analysis identified the heterozygous c. 414T>G, p(Tyr138*) pathogenic variant in the PTEN gene, confirming the clinical diagnosis. **Discussions :** Reviewed literature suggests that individuals with ASD and PTEN mutations differ on several cognitive traits from

those with idiopathic ASD or with just PHTS, showing that their combination leads to symptoms worsening. However, for a better understanding of the relationship between behavioral variables and genetic factors, PTEN mutations should be routinely tested for, and extensive comparisons with other groups should be made.
Conclusions: Cowden Syndrome is a rare inheritable cancer predisposition syndrome with variable symptomatology and management. Its association with ASD, a totally different condition but very easy to detect, is vital when it comes to early diagnosis, patients with Cowden syndrome being at high risk of malignant complications.

Keywords: Cowden Syndrome, Autism spectrum disorder, hamartomas

POSTER - DENTAL MEDICINE

MAXILLARY SINUS FLOOR ELEVATION: SURGICAL PROCEDURES FOR IMPLANTOLOGY TREATMENTS

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Introduction: Sinus augmentation or sinus lift is a common procedure in oral surgery designed to increase the thickness of the maxillary bone so that reconstructive work can be performed such as, for example, performing fixed integration bone substitutes. The purpose of this procedure is to increase the amount of bone in the back of the jaw particularly in the area between the premolar and molar teeth. Tooth loss, caused by various factors, can decrease the thickness of the sinus floor and make osseointegration of implants difficult. Conceptually, the resolution of edentulism by means of an implant is fascinating for several reasons: the functionality and aesthetics it is superior to any other form of prosthesis; the implant replaces the tooth and in a way that resembles the natural tooth; the implant-supported prosthesis can be independent of adjacent teeth; facilitate and stimulates bone and producing an increasing in bone density in response to functional loading. **Case Report:** This clinical study aims to analyze a case of Maxillary Sinus Augmentation along with Surgical Methodologies and Evaluation of Long-Term Results in Dental Implantology. For this case the patient was a 50 year old female who needed a Maxillary Sinus Floor Elevation before a Surgical Implant procedure. This implant was to be placed on the left side of her face. Prior to the surgery she had the extraction of the pre-molar (2.5) and first molar (2.6) and a provisional resin bridge was fixed to the edentulous area. The sinus area was raised using the Caldwell-Luc technique and once complete the two implants were successfully inserted. The case study was conducted in a private Clinic in Targu Mures. **Discussions :** In this study, once the bone augumentation procedure was completed it was seen that there was satisfactory healing in the operated area and acceptable bone osteointegration of the implants. Overall, the use of Caldwell-Luc surgery technique for maxillary sinus lift can be indicated in most cases when needed for implant interventions. Other authors also promote the procedure in selected cases. **Conclusions:** The Maxillary Sinus Lift is a procedure particularly indicated when planning implant rehabilitation in this area. In addition, it is recommended for patients who wish to avoid the use of traditional removable prostheses and prefer a more stable and permanent solution. The reached level of Hygiene is also really high. Is a painless procedure, and gives the best results.

Keywords: Implantology, Maxillary Sinus Floor Elevation, Oro Maxillo Facial Surgery, Bone Aumentation

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ACUTE EXACERBATION OF CARIES LESION DURING ENDODONTIC TREATMENT: IODOFORM OVERLOAD LEADING TO ABSCESS FORMATION- A CASE STUDY

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Introduction: As every dental practitioner wants the best for those they treat, we occasionally use methods that we know would result in the best outcomes, but we sometimes forget that we also have additional side effects or sensitivities to various materials. In this case we will talk about the effects of the iodoform based filling materials in root canal treatments. **Case Report:** For the previous five days, a 24-year-old patient has complained of discomfort regarding her 1.5 tooth. As the practitioner began treating the causative tooth, he decided to seal the canal roots first with calcium hydroxide. As the patient returns after two weeks experiencing pain, the practitioner decides to attempt an alternative strategy by applying iodoform as a temporary root canal filling. Experiencing an acute exacerbation twelve hours later the patient began to experience pain, facial swelling, and bruising, facing now a reaction known as flare up, lately leading to an abscess formation. The symptoms reduce only after a surgical intervention. **Discussions :** The patient desired to know more about the outcome of the endodontic procedure, since the first approach with calcium hydroxide caused agony and pain, the practitioner opted to obturate the root canals with iodoform. This results in the creation of an abscess due to excess iodoform in the alveolar bone. The abscess formed after the iodoform entered the periapical tissues via the apical foramen, causing acute inflammation and pus production. The swelling and bruising improved only after an incision was performed draining the surplus iodoform and reducing the abscess. Given the reason for the abscess formation, the patient was given antibiotic treatment for seven days, along with an incision that stimulated iodoform drainage. **Conclusions:** The abscess developed as a result of secondary endodontic treatment, which caused iodoform surplus in the periapical area, resulting in swelling and bruising. Symptoms subsided only after surgical

intervention and the use of antibiotics. Resulting in an effective endodontic treatment.

Keywords: Endodontic Treatment, Iod, Abscess, Complications

CENTRIC RELATION RECORDING: A COMPREHENSIVE APPROACH TO RESTORE SEVERE DENTAL WEAR

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Introduction: In the fields of Prosthodontics and dental occlusion, in particular, the idea of centric relation is important. It describes the position of the mandible in the temporomandibular joint with the disc appropriately positioned between the condyles when they are at their most superior and anterior positions against the articular eminence. In a situation of severe tooth wear requiring extensive restorative therapy, which included full rehabilitation at an enhanced vertical dimension of occlusion, this case study highlights the need of centric relation recording. Centric relation recording techniques remain relevant in contemporary dentistry, offering dentists the opportunity to improve treatment outcomes and diagnostic precision. **Case Report:** For a 45-year-old patient with significant and uneven dentition wear, this case study offers a thorough procedure for enhancing both function and appearance. The process was centred on restoring the patient's stability and occlusal function in the proper centric position. An assisted centric relation recording using JIG Lucia was used to create a full occlusal splint for muscle relaxation. After 2 months of wearing it at night and after 2 weeks of check-ups, the certified centric position was used to mount the models into the semi-adjustable articulator to design an analogue bimaxillary wax-up. The wax-up was tested as a mock-up. After validation, twenty-two tooth-supported monolithic zirconia restorations and four implant- supported monolithic zirconia restorations were placed. **Discussions :** Both modifications produced a good blend of appearance and function. Together with an appealing integration of restorations, marginal fit, insertion, and centric occlusal contacts were accomplished. Occlusion both static and dynamic was possible with both restoration strategies.. **Conclusions:** Using fitted models in the correct hinge axis position guided by centric relation accurate recording, severe dental wear can be addressed.In modern dentistry, this method improves diagnosis precision and treatment outcomes.

Keywords: centric relation, occlusion, JIG Lucia, rehabilitation

POSTER - PHARMACY

ADVANCES AND PERSPECTIVES ON THE DETECTION OF FLUOROQUINOLONES RESIDUES IN ENVIRONMENTAL WATERS

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Background: Over the past decade, antibiotic consumption has substantially increased, leading to a corresponding rise in their presence in the environment. While some antibiotics, like penicillins and cephalosporins, break down quickly due to hydrolysis, others such as fluoroquinolones and tetracyclines exhibit high chemical stability, allowing them to persist in the environment and accumulate over time. Because antibiotics are present at high levels in the environment, they are classified as a contaminant of emerging concern. The current water treatment technologies do not remove all traces of antibiotics in wastewater, therefore the monitoring of their occurrence in surface and wastewater becomes very important. **Objective:** This paper aims to provide a brief overview and summarise the main chromatographic methods described in the literature for the determination of fluoroquinolones from different water samples. **Material and methods:** The analysis of scientific literature published in the last 10 years in PubMed, Science Direct, Medline and Google Scholar using the following keywords: "fluoroquinolones", "wastewater", " environment", "chromatography" and "contamination". **Results :** Fluoroquinolones are a family of broad-spectrum antibiotics, being bactericides used against a wide range of aerobic and anaerobic gram-positive and gram-negative microorganisms. High-performance liquid chromatography (HPLC), ultra-performance liquid chromatography (UPLC) with UV detection and liquid chromatography coupled to mass spectrometry (LC-MS) are the main methods used to analyze fluoroquinolones in wastewater. Surface water receives water from various sources along with pollutants such as RAbs (residual antibiotics) and ARGs (Antimicrobial Resistance Genes). Data reviewed from the literature indicate that ofloxacin, norfloxacin and ciprofloxacin, some of the most prescribed antibiotics in the class, are the most commonly encountered fluoroquinolones as water contaminants. The results showed that ciprofloxacin and levofloxacin were detected in the raw water, while ciprofloxacin and levofloxacin were also detected in the finished water. **Conclusions:** Although analytical methods for the simultaneous detection and quantification of different antibiotic contaminants in the environment have been extensively researched over the last decade, to facilitate ongoing monitoring and enhance understanding of the fate of antibiotics in the environment, it is essential to develop standardized analytical techniques for the analysis of antibiotic residues from as many classes as possible and to implement more restrictive legislation on the monitoring and destruction of antibiotics.

Keywords: fluoroquinolones, environment, wastewater, contamination

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WHAT DO SOME ETHNOBOTANICAL PRODUCTS CONTAIN?

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Background: According to the reports from emergency units in the whole country, the consumption of psychoactive products shows an upward trend. The patients' treatment diagnosed with acute poisoning caused by the consumption of ethnobotanical products represents a challenge for the doctors working in the Emergency Department, their attention being focused on the problems which may endanger the vital functions. The lack of information on the chemical composition, origin of ingredients and potentially dangerous substances used to manufacture ethnobotanical drugs makes it difficult to assess health risks and toxicity levels. **Objective:** The study aims to identify substances contained in ethnobotanical products. This was possible using gas chromatography coupled with mass spectrometry. **Material and methods:** Some ethnobotanical products, identified as the most known and, implicitly most consumed, were analysed by gas chromatography-mass spectrometry. The methanolic extracts of the samples were analysed using the FOCUS GC System (Thermo Electron Corporation), equipped with a TR-5MS capillary column with a length of 30 m and an internal diameter of 0.25 mm. Helium was used as carrier gas and the flow rate was 1mL/min. **Results :** The tests identified substances with psychoactive properties. Two pyrovalerones (MDPV and MDPBP), psychoactive drugs with stimulant properties, acting as serotonin-dopamine reuptake inhibitors, were identified in one of the products. Acute effects include: extreme anxiety/agitation, sometimes progressing to violent behaviour, insomnia, psychotic delusions, confusion, tachycardia, hypertension, precordial pain, shortness of breath, tachypnea, coughing, hyperthermia, chills, sweating, bruxism, nausea, abdominal pain and transit disorders. 1-penethyl-3-(2-chlorophenyl) indole (JWH-203),

one of the most complex types of synthetic cannabis, agonist for both CB1 and CB2, has been identified in another ethnobotanicalwith approximately equal affinity and its effects on the body and brain are more intense than THC, which is only a partial agonist of cannabis. JWH018 alters the mindset of on addicted person and can cause extreme anxiety, panic attacks and seizures. This is due to the fact that affects the GABAneurotransmitters. **Conclusions:** The consumption of ethnobotanical products represents a complex issue that does not lend itself to simple conclusions. However, we may draw a clear conclusion: ethnobotanical products thought to be 'safe' or 'low-risk', contain dangerous substances, with harmful effects, some of which may be life-threatening.

Keywords: drugs, ethnobotanical products, gas chromatography, psychoactive substances

PHARMACOTECHNICAL CHARACTERIZATION OF BENZOCAINE ORODISPERSIBLE FILMS

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Background: Orodispersible films (ODFs) are utilized in medical practice for the ease of administration by patients with dysphagia, as they do not require water for administration. Benzocaine is an anesthetic drug with a dual therapeutic role (treating oral ulcers and throat pain) that can be used in combination with menthol (taste-masking agent). **Objective:** The objective of this study is to develop a bilayered orodispersible film (FPBS) incorporating 1.5 mg benzocaine/ODF (3.14 cm^2). **Material and methods:** FPBS was obtained by sticking two monolayered films previously obtained through the solvent casting method, one composed of Vivapharm®$HPMCE_6$ and sodium bicarbonate-blank film (FPMB1), and another composed of PVA, benzocaine, menthol, and citric acid (FPMS2). When exposed to saliva in the oral cavity, the components interact and undergo a reaction. Solvents such as alcohol and ultrapure water, plasticizer (glycerol), and sweetener (sucralose) were used. Tests were conducted to evaluate average mass, thickness, folding endurance, pH, adhesiveness, elongation, tensile strength, disintegration in Petri dishes, disintegration according to pharmacopeial methods, and release of the active substance (Erweka, basket) using a phosphate buffer as a dissolution media, pH=6,45. **Results :** The average mass ranged between 108.2±17.03 mg of FPMB1 and 326.9 ±42.85 mg for the bilayered films. The thickness of FPBS was 759.84±35.74 µm while for the monolayered ODFs values between 246.92±32.90 µm (FPMB1) and 509.6±30.3 µm (FPMS2) were recorded. During the folding endurance evaluation, FPBS was influenced by the low resistance of FPMB1, which ruptured after 1-2 folds, whereas FPMS2 was resistant, requiring >60 folds for film rupture. The pH of FPBS reached 2.93 due to the high amount of citric acid while the FPMB1 exhibited a pH of 8.7. In the elongation test, the PVA-ODFs underscored better values compared to the HPMC-based ODFs. Regarding adhesiveness, FPBS exhibited two different values depending on the type of film adhered to the membrane, with the FPMB1 side being more adhesive (25.4±7.1 N/cm^2). In terms of tensile strength, FPBS underscored the highest value 6.27 ($N*mm^{-2}$). The bilayered films disintegrated in 263.6±150.1s in phosphate buffer media, pH=6,45, through the pharmacopeial method, results correlated with the amount of benzocaine released (λ=285 nm) at 30 minutes (>98 %). **Conclusions:** In conclusion, our study demonstrates that benzocaine can be successfully incorporated into a bilayered film that meets the necessary mechanical, dimensional, and release requirements, making it a practical option for treating oral ulcers.

Keywords: anesthetic, bilayered orodispersible film, disintegration

THE UTILITY OF THE 2^2 FULL FACTORIAL DESIGN IN THE DEVELOPMENT AND OPTIMIZATION OF AN IBUPROFEN HYDROGEL

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Background: Ibuprofen a nonsteroidal anti-inflammatory drug (NSAID) derived from propionic acid utilized for its anti-inflammatory and analgesic effect was selected as an active substance for incorporation into hydrogel matrices since this active ingredient is recommended for pain therapy, rheumatoid arthritis, and osteoarthritis. **Objective:** The purpose of this study is to develop and optimize a suspension-type gel containing 5% ibuprofen using a full factorial design and to highlight and optimize the rheology and consistency of the products. **Material and methods:** In this study, the following substances were used: ibuprofen 5%, sodium carboxymethylcellulose (CMCNa, gel-forming agent), glycerol (humectant), menthol (penetration enhancer), alcohol (co-solvent), and

preservative solution. Using Modde 13 software, a full factorial 2^2 design with 3 central points resulting in 7 formulations was applied, where the gel-forming agent and the humectant represented independent variables as follows: GI1 (CMCNa 2.5g, glycerol 2g), GI2 (CMCNa 2.5g, glycerol 3g), GI3 (CMCNa 5g, glycerol 2g), GI4 (CMCNa 5g, glycerol 3g), and three central points GI5, GI6, GI7 (CMCNa 3.75g, glycerol 2.5g). The remaining substances were added in equal amounts to all gels. The outputs selected were consistency, spreadability, shear stress, and viscosity at shear rates of 6 and 12 during both shear thinning and recovery phases. **Results :** The evaluated statistical parameters include R^2 (coefficient of determination) and Q^2 (measuring the predictive ability of the model), model validity, and reproducibility. All dependent variables exhibit positive predictability values, and all selected inputs highlight an R^2 close to 1, besides, the validity being > 0.25 indicates the lack of fit of the model. Increasing the concentration of the gel-forming agent produced a significant decrease in the spreadability and consistency while for the outputs selected during the destructuration and restoration phase (viscosity and tangential stress), a complex correlation behavior was noticed. The results obtained from the rheological test were graphically represented, indicating a pseudoplastic thixotropic flow. **Conclusions:** In conclusion, this study has demonstrated the success of utilizing a full factorial 2^2 design for the development of an optimal formulation of 5% ibuprofen gel, used in the treatment of local pain. Through the evaluation of 7 formulations, an optimal formulation with specific concentrations of sodium carboxymethylcellulose and glycerol was assessed, which provides the desired characteristics of spreadability, consistency, viscosity, and tangential stress.

Keywords: Ibuprofen, Hydrogel, Full factorial design, Optimization

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THE HIDDEN SIDES OF THE REWARD SYSTEM – FROM ADDICTIVE BEHAVIOR TO MOTIVATION TO LEARN

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Background: The mesolimbic-mesocortical system has dopamine as a prominent neurotransmitter and plays a key role in emotional behavior (amygdala), eating, sex, and in the learning-memorization process (by regulating plasticity - Sahp). Its release is controlled by interactions with other neurotransmitters (serotonin, glutamic acid, GABA, catecholamines). Excessive dopamine release in the nucleus accumbens is linked to psychotic phenomena such as schizophrenia, along with drug addiction, gambling, eating disorders, and sexual behavior disturbances. Addiction manifests itself at several levels respectively: expression of genes (increased FoSB) and dopamine receptors, synaptic remodeling (excess glutamate, neuroplasticity), stress (hyperpolarization), and choices (determined by the PFC). This paper aims to evaluate and present pharmacological interventions that facilitate cognitive processes related to memorization-learning and how to escape the addiction trap. **Objective:** This paper aims to evaluate and present pharmacological interventions that facilitate cognitive processes related to memorization-learning and how to escape the addiction trap. **Material and methods:** A selection was made from the main databases (Pubmed, ScienceDirect, Scopus) using keywords: dopamine, reward system, nucleus accumbens, memory, and learning. 54 articles considered representative of the selected topic were selected and information relevant to the learning process and psycho-pedagogical implications was classified into several categories based on both experimental studies and clinical experience: the process of memorization, adaptation, prediction, and error. Also, the risks linked to excessive dopaminergic stimulation are highlighted. **Results :** D1-like (Gs) receptors in the cortex are primarily located in perisynaptic or extrasynaptic areas, while D2-like (Gi) receptors are found more synaptically and differ in their affinity for dopamine and transduction mechanism. The learning process modifies the repeated activation of action potentials, with D1 activation being correlated with maladaptive neuroplasticity processes. **Conclusions:** The reward system is involved in the addiction and memorization processes that underlie social adaptation processes. The extent to which overstimulation produces pathological disturbances may also be key to pharmacological intervention. The article highlights the possibilities of influence-behavioral reeducation in addictions and their associated pathologies (obsessive-compulsive behaviors).

Keywords: Dopamine, Reward System, Nucleus Accumbens, Memory

OPTIMIZATION OF PTNPS BIOSINTHESIS METHOD USING PICEA ABIES SP. AND BEECH SP. AQUEOUS BARK EXTRACTS

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Background: The study of nanoparticles (NP) is a continuously expanding field. The biosynthesis of NPs with the help of natural extracts presents numerous advantages (simple, economical, safe for the environment, high reproducibility), being preferred by researchers, to the detriment of chemical synthesis. **Objective:** The purpose of this study was to identify the optimal conditions for the synthesis of PtNPs with natural bark extracts. **Material and methods:** Methods: First, the aqueous bark extracts were obtained from Picea abies sp. and Beech sp. by ultrasound-assisted extraction. The salt used was K2PtCl6. To identify the optimal conditions of PtNPs biosynthesis, numerous determinations were made in which the concentration of salt solution (0,5 mM, 1mM, 2mM), temperature (50°C, 70°C, 80°C), pH (the initial pH of the mixture±2 pH units), cation:extract ratio (1:10, 1:50, 1:100) varied. The synthesis was monitored for 24 hours, with absorbance reading at 2 hours, wavelength range: 250-450 nm. **Results :** The bioreduction of Pt4+ was confirmed by the color change from pale yellow into black and by UV-VIS spectroscopy. The recorded spectrum shows a surface plasmon band at 263 nm for Pt4+, 280 nm for Picea sp., and 282 nm for Beech sp. In the case of PtNPs all these bands disappear (a characteristic thing for this metal). **Conclusions:** As a result of the optimization processes for PtNPs biosynthesis, the following results were obtained: for Picea abies sp (molid) Pt 1mM, ratio 1:10, pH 10, 80oC; for Beech sp. Pt 1mM, ratio 1:10, pH 10, 70oC. This research topic is still ongoing, following the characterization of nanoparticles (IR, TEM, SEM, TGA) and the analysis of biological activity (antioxidants, antimicrobials, antifungals).Acknowledgment: This work was supported by the University of Medicine, Pharmacy, Sciences and Technology "George Emil Palade" of Târgu Mures Research grant number 10127/17/17.12.2020.

Keywords: nanoparticles, platinum, biosynthesis, bark extracts

POSTER - MILITARY MEDICINE

QUANTIFYING CONDYLE DISPLACEMENT IN AN ISOLATED MANDIBULAR FRACTURE: A CBCT-BASED CASE REPORT

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Introduction: Fractures of the mandibular condylar process represent significant challenges within maxillofacial trauma, characterized by their diverse clinical outcomes. The utilization of Cone Beam Computed Tomography (CBCT) has transformed the diagnostic landscape, providing an in-depth view of fracture patterns and bone architecture, crucial for comprehending the complexity of such injuries. This study employs CBCT to **compare the structural integrity of a fractured condylar process with its intact counterpart**, aiming to highlight the consequential alterations. **Case Report:** Our retrospective analysis utilized an archived high-resolution CBCT scan (0.250 resolution, 130 field of view, 640 × 640 image matrix) of a male patient with a **displaced unilateral fracture of the mandibular condylar process**. The uncompressed DICOM file was analyzed using Planmeca Romexis Viewer 3.5.0.R software. Detailed measurements revealed **significant morphological alterations** when compared to the intact side. In axial and sagittal planes, the distance from the mandibular neck to the lateral pterygoid plate was markedly reduced to 7.93 mm from 22.8 mm on the unaffected side. Similarly, the neck-to-coronoid process distance decreased to 15.66 mm from 21.31 mm, and the condyle-to-tuberosity distance diminished to 19.04 mm from 34.18 mm. The most striking finding was the severe displacement of the condyle beneath the articular eminence, with a minimal distance of just 2.7 mm, indicating significant displacement. **Discussions :** The findings from the CBCT analysis indicate the significant impact of mandibular condylar process fractures on the **structural integrity and anatomical configuration** of the jaw. The diminished distances and altered condyle positioning highlight the necessity of incorporating **personalized anatomical assessments** into clinical evaluations. This approach is essential for understanding the individualized impacts of such fractures, facilitating tailored treatment strategies that acknowledge the unique anatomical variations of each patient. The study reinforces the role of CBCT in achieving these personalized anatomical assessments, providing a foundation for more informed clinical decision-making and potentially improving patient outcomes in **maxillofacial trauma management**. **Conclusions:** CBCT is a significant diagnostic tool in the diagnosis of mandibular condylar process fractures since it provides important insights regarding the wide range of anatomical modifications. This technology ensures more individualized treatment of these complex injuries and predicts a more focused and, consequently, successful intervention in trauma care in the maxillofacial region. **Personalized anatomy is highly recommendable.**

Keywords: CBCT Imaging, Mandibular Condylar Fractures, Anatomical Alterations, Personalized Anatomy

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A RARE GARDNER-DIAMOND SYNDROME CASE REPORT

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Introduction: The Gardner-Diamond syndrome (GDS) is a rare and poorly understood clinical presentation, characterized by spontaneous development of painful edematous skin lesions especially on the limbs, progressing to ecchymosis over the next 24 hours. Also known as psychogenic purpura, this title is gave by the strong association with the patient's psychiatric history. Autoerythrocyte sensitization syndrome is another name related to the proposed physiopathological mechanism which is characterized by the auto-sensitization of patients to their own blood, mainly to phosphatidylserine. Women are the most affected. GDS may be confused with several disorders with dermatological manifestations therefore the laboratory examination is compulsory to differentiate the GDS from other diseases. All hematologic parameters are within normal limits in this syndrome. That makes GDS an exclusion diagnosis. **Case Report:** Ms O, a 27 year-old woman presented at the Dermatology outpatient clinic of the Cumhuriyet University Hospital with multiple painful ecchymoses on the medial parts of the thighs recurrent in the last days. She confirmed following many psychotherapy meetings in the last year. No personal or family history of bleeding disorders or use of aspirin or any nonsteroidal anti-inflammatory drugs were reported. A battery of laboratory tests were performed but all the parameters were within normal limits. The case was thought to have GDS due to anamnesis, age, gender, characteristic skin findings and laboratory examination. Although there is no specific treatment, the prognosis of GDS is good. The treatment in this case consisted of antidepressants and

anxiolitics. **Discussions :** Additionally, to confirm the diagnosis an intradermal test can be performed. The intradermal test consists of injecting 0.1ml of patient's own plasma intradermally in one arm and in the other a control physiological saline solution 0.1 ml. If a skin lesion appears in the first hour or in the next 24 hours, the test is considered positive. In this case, the intradermal test wasn't required. Psychological treatment is seen as the most effective treatment. **Conclusions:** In conclusion, Gardner-Diamond Syndrome presents a unique challenge in clinical diagnosis due to its rare occurrence and varied symptomatology. Through the careful examination of skin lesions, consideration of psychiatric history, and the absence of significant hematological changes, a diagnosis of Gardner-Diamond Syndrome can be confidently made. By integrating dermatological, psychiatric, and hematological assessments, healthcare professionals can facilitate timely diagnosis and improve the quality of life for patients living with Gardner-Diamond Syndrome.

Keywords: Gardner-Diamond Syndrome, psychogenic purpura, autoerythrocyte sensitization

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FROM DIAGNOSIS TO RECOVERY: SURGICAL INTERVENTION IN BIMALLEOLAR FRACTURES AND ASSOCIATED TIBIAL PILON FRACTURE, A CASE REPORT

Ionuț-Lucian Dojană[1], Constantin Nistor[1], Andra Iacob[1], Raul Cupsa, Adrian Ivănescu[1], Denis Pasc[1]

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Introduction: Ankle fractures are common injuries with a wide variety of potential causes, ranging from a trivial twisting injury, in elderly frail patients to high-energy trauma in young patients. Bimalleolar fractures involve both lateral and medial malleoli at the distal ends of the fibula and tibia, and they frequently result from high-energy injuries. Eversion is considered the most common mechanism capable of causing various types of damage. **Case Report:** The objective of this paper is to present a case study of a 45-year-old patient, who presented at the Emergency Department complaining of pain in the ankle with movement limitation in a pre-immobilized inferior limb by another hospital service after a minor sledding accident. During the clinical examination, perimalleolar ecchymosis, local edema, and a discontinuity in the bone margin with bone crepitus and abnormal mobility were observed. Positive prognostic signs were also noted as peripheral pulse was present, and no trophic, neurological, or vascular disturbances were found. Following the radiologic exam, the diagnosis of bimalleolar fracture associated with tibial posterior pilon fracture and tibio-astragalian subluxation of the inferior right limb was established. By the anterior mentioned diagnosis, and after a paraclinical examination, surgical treatment was initiated as quickly as possible. A lateral approach at the level of the lateral malleolus was undertaken, involving an open reduction of the fracture. Osteosynthesis was attempted using an inter-fragmentary compression screw and an anatomical plate with titanium screws, all under radiological control. Additionally, an open reduction and internal malleolus osteosynthesis was performed with a stainless steel traction screw. However, for the tibial pilon fracture, osteosynthesis was considered unnecessary due to the size of the fractured fragment at this level. After the surgery, the limb had to be immobilized in a plaster cast, with the addition of resting in bed and elevating the affected foot. The patient's progress was favorable, with no signs of infection or suppuration. **Discussions :** Surgery is the primary treatment of bimalleolar fracture due to its unstable nature, which can lead to complications such as damage to the neurovascular bundles and malunions or nonunions of the fractured bones. These types of consequences can result in a significant reduction in the patient's quality of life. **Conclusions:** In this case, a lack of resources and the haste of the first medical team could have caused severe complications. As in other cases, treatment should be targeted at the underlying issue rather than just addressing the signs and symptoms.

Keywords: Bimalleolar fracture, Twisting injury, Osteosynthesis

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CONFRONTING FRAGILITY: MANAGEMENT OF PROXIMAL HUMERUS FRACTURES IN OLDER ADULTS, A CASE REPORT

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Introduction: Proximal humerus fractures are frequently observed in older patients with osteoporosis following low-energy impacts, such as falls from the same level. Extraarticular two-part surgical neck fractures are unifocal humeral fractures with displaced metaphysis. **Case Report:** This paper aims to follow the case of a 71-year-old patient, who presented to the Emergency Department of the hospital, experiencing high levels of pain regarding

the right shoulder along with a limitation of mobility in the right upper limb. These symptoms manifested following a same-level fall. A combination of pathological antecedents may have led to increased bone fragility, making such a fall result in a severe fracture. Some of the risk factors associated with our patient included the chronic administration of antidepressants, type 2 diabetes, female gender, and also glaucoma which could have heightened the probability of a fall by significantly narrowing the field of view. After a clinical examination that revealed a shorter right upper limb, a discontinuity of the bone margin, bone crepitus, and deformation of the limb, contrasted by a radiological examination, the definitive diagnosis of a displaced humeral surgical neck fracture was assessed. Due to its unstable nature, the decision for surgical treatment was promptly made. The patient underwent an Open Reduction and Internal Fixation procedure, chosen for its advantages in facilitating a quicker return to normal daily activities and reducing the required time in plaster. Because of the medial displacement of the humeral diaphysis and the risk of axillary nerve injury associated with lateral access, the deltopectoral approach was selected. An angular stable plate, secured with locking-head screws, additional calcar screws, and two bicortical screws for enhanced stability, was utilized. The surgery proceeded without further complications, resulting in a rapid improvement in the patient's medical status. **Discussions :** Falls serve as markers of immobility, and health impairment in older persons, reducing function through injury. According to the Downton fall scale, our patient obtained a score of 4, indicating a high risk of falling. This implies that careful consideration and caution may be necessary in the long-term treatment of this patient. **Conclusions:** The prevention of falls must include a wide range of ages and health states within the older population, addressing the diverse causes of falls without compromising quality of life and independence. A low-energy fall can be disabling, particularly in association with older age or risk factors that decrease bone density or reduce the awareness of the environment.

Keywords: Low-energy fall, Surgical neck, Fracture

VACCINATION NEXUS: SAFEGUARDING AGAINST INFECTIONS IN MULTIPLE SCLEROSIS MANAGEMENT

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Introduction: Multiple sclerosis (MS), characterized by inflammatory and autoimmune processes affecting the central nervous system, often necessitates immunomodulator therapy. However, these treatments can compromise immune function, increasing susceptibility to severe infections. Vaccination against preventable diseases is crucial in managing MS. Despite vaccination efforts, MS patients, including those receiving disease-modifying therapies (DMTs), remain vulnerable to infections such as measles, highlighting the ongoing challenge of ensuring adequate vaccination coverage. **Case Report:** A 44-year-old MS patient, immunized against SARS-CoV-2 but lacking influenza vaccination, has a history of MS since 2016 and is undergoing treatment with Gratiramer acetate (Copaxone) 40 mg/2 days. He presents with respiratory complications suggestive of influenza type A, leading to an unfavorable outcome. Firstly, post-influenza pneumonia is diagnosed, necessitating antibiotic therapy (Fluoroquinolones) based on pronounced inflammatory markers and recent flu history. Subsequently, with persistent fever, asthenia, and cough, the patient seeks care at hospital. Despite the absence of inflammatory markers, a viral recurrence is diagnosed, with symptomatic management recommended. Two days prior to admission, a macular erythematous rash with facial onset and craniocaudal extension and jugular mucosa enanthema appears. Laboratory findings reveal leukopenia, significant inflammatory response, and anti-measles IgM antibodies, confirming measles diagnosis. **Discussions :** This case underscores the crucial need for thorough patient screening and vaccination before starting DMT in MS patients. It highlights the delicate balance between managing autoimmune disease and preserving immune function. Interdisciplinary collaboration between neurology and infectious diseases specialists is pivotal for timely interventions and optimal patient outcomes. Additionally, baseline assessment of immunological status, infectious disease history, and vaccination status is essential for treatment decisions. While the patient in this case was vaccinated against measles, the absence of influenza vaccination may have heightened susceptibility to influenza type A infection, emphasizing the importance of vaccination adherence. Furthermore, the emergence of measles highlights the global significance of vaccination, with ongoing efforts needed to prevent disease outbreaks and protect vulnerable populations. Adherence to hygiene protocols, including wearing facial masks and handwashing, is paramount in preventing infectious spread and safeguarding vulnerable individuals. **Conclusions:** In summary, this clinical case underscores the complexities inherent in managing MS patients undergoing DMT treatment, particularly regarding infectious diseases and vaccination status. A holistic approach, emphasizing proactive screening, interdisciplinary

collaboration, and adherence to vaccination protocols, is crucial for ensuring patient safety.

Keywords: measles, vaccination protocols, disease-modifying therapies, proactive screening

VARICELLA-ZOSTER VIRUS MENINGITIS IN A PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Introduction: Systemic lupus erythematosus (SLE) is a chronic autoimmune disease characterized by complex immunological disturbances, rendering individuals susceptible to various infectious complications. Among these, Varicella-zoster virus (VZV) meningitis stands out as a rare yet potentially severe manifestation. This condition poses a significant threat, particularly to individuals with compromised immune systems, where VZV meningitis can manifest as a serious complication of VZV infection. **Case Report:** This paper presents the case of a 46-year-old female patient diagnosed with systemic lupus erythematosus (SLE) in 2022, exhibiting manifestations including pericarditis, arthritis, cutaneous lesions, and renal involvement under treatement with immunosuppressive therapy. The patient initially presented in the Emergency Room for a vesicular eruption surrounding the left eye. The blood test did not find an inflammatory syndrome and was diagnosed as a herpes ophthalmicus treated by Zelitrex. Subsequently, three days later she experienced cephalees, a vomiting episode and persisting ophtalmological sympoms, leading to further investigations. The neurological examination didn't show any clinical sign of meningitis. Cerebrospinal fluid analysis revealed a clear aspect with 71 elements/mm³, a protein concentration of 0.32g/L and a glycorachia higher than 0.4, being suggestive for a Varicella-Zoster Virus (VZV) Meningitis, dyagnosis confirmed later by the PCR. Additionally, imaging examinations were made: a TEP Scan not presenting any anomalities, but not excluding a herpetic encephalo-meningitis and an IRM not showing any sign of encephalitis and no visible sign of meningitis. The patient was treated with Aciclovir 15 mg/kg every 8 hours for 14 days and also a hyperhydratation and received close renal monitoring to prevent complications. **Discussions :** This case highlights the importance of considering atypical presentations of VZV infection in immunocompromised individuals, such as those with SLE, and underscores the need for prompt diagnosis and management to prevent serious complications. **Conclusions:** In conclusion, this paper serves as a reminder to maintain a high index of suspicion for VZV-related complications in immunocompromised patients, particularly those with underlying autoimmune diseases like SLE. Early recognition, intervention and multidisciplinarity are paramounts in preventing serious morbidity and optimizing outcomes in such cases.

Keywords: Varicella-zoster virus, meningitis, systemic lupus erythematosus

THE INTERSECTION OF STRESS, DEPRESSION, AND CARDIOVASCULAR HEALTH: CASE STUDY

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Introduction: Depression, a worldwide spread mental health issue, entails enduring emotions of sadness, and a diminished interest in previously enjoyable activities. It can lead to physiological changes in the body contributing to cardiovascular problems. Chronic stress associated with depression can lead to increased levels of cortisol, having adverse effects on the cardiovascular system, as increased inflammation and arterial damage, potentially leading to a myocardial infarction. **Case Report:** This paper presents the case of a 51-year-old active male pacient without any major cardiovascular risk factors. He presented an important episode of depression in the recent past and reported a high stress level at his job. He was admitted in the Emergency Room with important retrosternal started 3 hours prior the admission. Upon investigations, the ECG revealed a 2-5 mm ST elevation in V1-V6, D1, aVL territories sugessting an antero-extensive ST-elevation myocardial infarction (STEMI). Transthoracic echography showed a left ventricular ejection fraction of 25-30%. Coronarography highlighted a distal occlusion in the left coronary artery, prompting angioplasty with two active pharmaceutical stents. The circumflex artery was passed by a balance middle weight guidewire (BMW guide) and the pre-stenosis dilatation was performed with a 1.5/15 balloon, resulting in the revascularization of the left anterior descending and the circumflex arteries. The left

ventriculary artery and the left anterior descending artery were angioplastied with pharmaceutical active Onyx 3.5/30 stent. Proximal optimisation technique (POT) was executed on the left ventricular artery with a NC 5/15 mm balloon, followed by kissing with the left ventriculary artery and circumflex artery balloons with good angiographic outcomes. During the procedure the patient experienced an episode of ventricular tachycardia requiring electrical cardioversion. Under double antiplatelet, anticoagulant, beta-blocker, statine, antialdosteronic, diuretic therapy, the patient showed satisfactory progress in the intensive care unit with no recurrence of angina or arrhythmias. **Discussions :** Similarly, in the military context, a soldier may face significant stressors. These can lead to mental health issues, including depression, which can have implications for cardiovascular health. The demanding nature of military service, combined with exposure to high-stress environments, result in physiological changes similar to those seen in depression, potentially increasing the risk of cardiovascular events like myocardial infarction. **Conclusions:** By acknowledging the relationship between stress, depression, and cardiovascular health, healthcare providers can optimize outcomes and improve overall quality of life for individuals affected by these conditions, whether in civilian or military populations.

Keywords: depression, myocardial infarction, Proximal optimisation technique

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A CASE OF CHRONIC HYPERTENSION WITH SUPERIMPOSED PREECLAMPSIA

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Introduction: Preeclampsia is a hypertensive disorder that occurs during pregnancy. It is defined as a systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg on two separate occasions at least 4 hours apart, all of which must be identified after 20 weeks of gestation. This complication occurs in up to 8% of pregnant women. **Case Report:** We present the case of a 33-year-old female known with grade II hypertension who presented to the ER of the SCJU Targu Mures with a BP of 170/100 mmHg, epigastric pain, and nausea, 36 weeks pregnant. She refused admission and presented on the second day to the Maternity Hospital with a BP of 174/118 mmHg. She had been on antihypertensive medication (Dopegyt and Nifedipine) but was insufficiently controlled. After clinical evaluation accompanied by a urinalysis which revealed proteinuria (31 mg/dl) and a blood sample that showed mild anemia (HGB: 10,8 g/dl, HTC:36,5%), elevated liver enzymes (AST:67 U/L, ALT:54 U/L), and thrombocytopenia (125.000/uL)) was diagnosed with XVIG IIP at 36 weeks of pregnancy, pre-existing grade II hypertension under treatment exacerbated by preeclampsia. **Discussions :** Chronic hypertension complicated by superimposed preeclampsia presents significant challenges for clinical management. Differential diagnosis with conditions like HELLP syndrome is essential. Despite the absence of hemolysis, the clinical picture warranted consideration for potential overlap with HELLP syndrome. The patient was kept under observation and treatment for four days, but there was no improvement in her condition. Therefore the decision was made to induce labor with prostaglandins and manage it with oxytocin infusion due to pre-existing hypertension exacerbated by pregnancy. On the other hand, if the patient would have developed an eclamptic crisis, It would have been considered an emergency, requiring a cesarean section intervention. **Conclusions:** This case highlights the importance of early recognition and appropriate management of chronic hypertension complicated by superimposed preeclampsia to optimize maternal and fetal outcomes. A wide range of complications can occur, including eclampsia (seizure disorder), HELLP syndrome, coagulation disorder, pulmonary edema, visual disturbances, renal failure, heart failure, and fetal and/or maternal death.

Keywords: Chronic hypertension, Preeclampsia, HELLP syndrome, Pregnancy

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CHOLECYSTIC INFECTION WITH CLOSTRIDIUM PERFRINGENS – DIAGNOSTIC AND OCCURRENCE

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Introduction: Clostridium perfringens is a Gram-positive rod that thrives in environments without oxygen and is well known for its ability to form spores. Habitually, it is found in traumatic wounds or the gastrointestinal tract, causing food poisoning. It is not a common pathogen in biliary tract infections. This presentation focuses on the diagnostic process and methods used to identify infections with Clostridium perfringens. Understanding the

diagnostic challenges and prevalence is crucial for effective management and treatment. **Case Report:** A 52-year-old male patient who presented to the surgery department with a sharp pain in the right hypochondrium. After clinical and paraclinical investigations, a laparoscopic cholecystectomy was performed, during which bile was collected as a pathological product. The sample was sent to the Bacteriology Department for microbiological diagnostic. A direct microscopic examination of the Gram smear revealed the presence of both Gram-negative and Gram-positive rods. The purulent secretion was further inoculated on all the standard culture media, both in aerobic and anerobic conditions, then incubated for 24 hours. Subsequent to isolation, biochemical tests, Vitek 2C automatic identification, and a supplementary smear from culture, the following pathogenic bacteria have been identified: Clostridium perfringens, Escherichia coli, and Enterococcus spp. Antibiotic susceptibility testing was performed for the last two agents and revealed susceptible strains. **Discussions :** Escherichia coli and Enterococcus spp. are normal inhabitants that can be found in gallbladder infections, while Clostridium perfringens is not typically associated with such infections. Polymicrobial cholecystitis has a specific aetiology that has been noted in various studies: the two aerobic bacteria (Escherichia coli and Enterococcus spp.) and an anaerobic bacteria (which in our case was Clostridium perfringens). Surgical intervention is the best measure in this acute syndrome, along with broad-spectrum antibiotics (aimed at both aerobic and anaerobic bacteria). While the microscopic examination exclusively detected rod-shaped bacteria, the subsequent cultures showed the presence of both rods and cocci (Enterococcus spp.), underscoring the indispensable role of cultures in achieving a conclusive diagnosis. **Conclusions:** The diagnostic process plays a critical role in identifying the pathogenic agent responsible for cholecystitis. A surgical approach remains the cornerstone of management for acute cases, complemented by broad-spectrum antibiotics targeting both aerobic and anaerobic bacteria. Overall, the patient`s condition improved favourably under treatment, leading to his discharge three days after surgery.

Keywords: polymicrobial cholecystitis, Clostridium perfringens, cholecystectomy, broad-spectrum antibiotics

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MANAGEMENT OF TIBIAL AND FIBULAR OPEN FRACTURES

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Introduction: A tibial and fibular type 2 fracture is characterized by a moderate level of soft tissue injury. Immediate surgery is a necessity in these cases. The management of this situation is highly important in orthopedic trauma management. It can prevent several serious complications, such as long-term disability and compartment syndrome. **Case Report:** Pacient, male, 24 years old, presents to the Emergency Room accusing severe pain, swelling and restricted mobility in the right calf. Upon further assessment, an open, swollen wound on the right calf can be visualised. Radiography reveals a type two open tibial and fibular fracture in the medial third of the right calf. After stabilizing the patient, immediate surgical intervention was necessary, which consisted in fracture reduction, along with implantation of intramedullary nails to fixate the bones. **Discussions :** The management of open fractures on both bones of the right calf is done in an extremely delicate manner. In order to achieve a complete recovery after such a trauma, the medical team is required to pay attention to the debridement process, the inflammation, the possible infections and the post-surgical care and treatment. **Conclusions:** Open tibial and fibular fractures can have numerous complications, which can alter the quality of life. Therefore, it is of utter importance that the management is organised, effective and done in time. Close monitoring is essential in these types of trauma. The case highlights how an efficient and structured treatment can help with a rapid recovery.

Keywords: Tibia, Fibula, Management, Fracture

FROM DIAGNOSIS TO INTERVENTION: A CASE STUDY ON HYSTERECTOMY DUE TO PELVIC INFLAMMATORY DISEASE

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Introduction: Hysterectomy is a radical surgical procedure involving the removal of a woman's uterus and in addition the ovaries and fallopian tubes. Despite its primarily indication for severe pathological conditions, statistics reveal that approximately one in three women will undergo hysterctomy by the age of 60. This case aims to draw

attention to the seriousness of recurrent or treatment-resistant infections and their potential to escalate to the development of pelvic inflammatory syndrome, unfortunately culminating in a hysterectomy as a last resort. **Case Report:** We present the case of a 42 year old woman with a gynecological history of three births and three abortions, subsequently opting for an intrauterine device (IUD) for contraception. The patient presented with severe abdominal and pelvic pain, symptoms that manifested approximately six months prior but intensified over the preceding two days. During a follow-up pelvic ultrasound, cystic masses on the left ovary and on the right side of the uterus were found, leading to the diagnosis of right adnexal tumor and pelvic pain syndrome. Clinical examination showed vaginal discharge and pelvic tenderness, indicating a possible pelvic infection due to the IUD, which was subsequently removed. **Discussions :** To address the severity of the condition, a laparoscopic procedure was performed. Upon opening, adhesion syndrome was observed in the small pelvis, involving the uterus, both appendages, the appendix, the omentum and the bowel loops. These organs displayed visible inflammation. Due to the extent of organ damage and the malignant appearance of the cysts on the uterus and ovary, a subtotal hysterectomy with bilateral salpingo-oophorectomy was decided as the appropriate course of action. Additionally, an adhesiolysis procedure was conducted, during which 500 ml of purulent fluid was drained. The final diagnosis, following the histopathological findings, was endometritis, myometritis, bilateral acute salpingitis, bilateral acute oophoritis, and uterine leiomyoma. **Conclusions:** The results confirm that despite the necessity of a hysterectomy, given the extensive lesions discovered, the surgery was deemed a great success. Our case recalls once again the potentially devastating effects of untreated infection on the reproductive organs.

Keywords: hysterectomy, intrauterine device, pelvic inflammatory syndrome

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INSIGHTS INTO ASD AND ADHD: A CASE STUDY IN PEDIATRIC PSYCHIATRY

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Introduction: Autism Spectrum Disorders (ASD) are increasingly prevalent in child and adolescent psychiatry, characterized by early-onset developmental deficits in social communication and repetitive behaviors. According to CDC data from 2014, ASD affects 1 in 68 children. Given the absence of curative medication, this study aims to highlight the importance of diagnosis by presenting a case study involving a 6-year-old child with autism and subsequently diagnosed with ADHD. **Case Report:** The patient, accompanied by both parents, presented at the Pediatric Psychiatry Clinic within the Saint Mary Emergency Children Hospital. The child exhibited difficulties in school integration, social interaction, sleep disturbances, psychomotor agitation, attention deficit, and both self- and hetero-aggression with minimal frustration. Additionally, stereotypical movements, increased adherence to non-functional rituals, and hyperreactivity to various sounds were observed. The child had been diagnosed with ASD at the age of 3 years and 6 months and had received Applied Behavior Analysis (ABA) therapy. A confirmatory diagnosis of ASD in association with ADHD and Mild Intellectual Disability was made according to DSM-5 criteria. **Discussions :** The patient was closely monitored by a psychiatrist for the following 6 months. Methylphenidate for ADHD (18mg/day) was initiated, along with a short period of treatment with risperidone (0.50 mg/day) and melatonin (2mg, 30 minutes before bedtime). Additionally, ABA therapy was continued in conjunction with play therapy, music therapy, and sensory integration therapy (especially auditory). Results were gradually positive, with the child successfully continuing school with the assistance of a tutor. **Conclusions:** Early diagnosis and intervention are essential in managing ASD and ADHD effectively. A multidisciplinary approach involving medication, therapy, and parental support can significantly improve outcomes for children with these neurodevelopmental disorders. Further research and continuous evaluation of treatment strategies are necessary to optimize interventions and enhance the quality of life for affected individuals and their families.

Keywords: autism spectrum disorder, ADHD, ABA therapy, mild intellectual disability

VISUAL TRANSPOSITION OF THROMBOGENIC THEORY ON ATHEROSCLEROTIC CORONARY ARTERY: A CASE REPORT

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Introduction: Coronary artery disease is a condition arising from the occlusion of the coronary arteries and resulting in a mismatch between oxygen supply and demand. The atherosclerotic process in the coronary arteries begins with endothelial dysfunction and can cause thrombotic total occlusion and myocardial infarction. This presentation aims to deepen the theory of coronary obstruction, in which the cause is usually the progressive accumulation of atherosclerotic plaques on the walls of the coronary arteries, leading to their narrowing and slow blockage and sometimes even to acute thrombotic total blockage. **Case Report:** The authors present a case of a 45-year-old man found dead in his backyard, under unclear circumstances. An autopsy was performed. The coronary arteries were approached at emergence and injected with a mixture of semiliquid orange substances with partial solidification at contact and plastic memory, completely revealing (up to millimetric 5th rank branches) the coronary vascular trunk. **Discussions :** The necropsy revealed the presence of an atheroma plaque in the lumen of a coronary artery. Using a specific paste technique on the atheroma plaque, a clear imprint of the thrombus was found attached to the atheroma plaque. With these results the final cause of death was established. **Conclusions:** The method of complete visualisation of the coronary system allowed the precise identification of the cause of death and of the preexistent pathologic background - advanced coronary disease with associated thrombosis, in a young male.

Keywords: new technique, atherosclerotic plaques, vascular trunck, orange substance

LISTERIA MONOCYTOGENES MENINGITIS- CASE REPORT

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Introduction: Listeria monocytogenes meningitis is a severe, life-threatening infection transmitted through contaminated food, primarily affecting individuals with weakened immune systems. L. monocytogenes is a gram-positive bacillus that mainly thrives in improperly processed animal products, posing a significant health risk through its morbidity and mortality. **Case Report:** A 58-year-old patient with history of tuberculosis (TB) is admitted for persistent headache, vertigo, confusion, and high fever which appeared over the course of one day. On clinical examination, the patient showed ataxia and positive bilateral Babinski sign. Laboratory findings suggested a bacterial infection and the brain CT scan was normal. Subsequently, an emergency lumbar puncture was performed, revealing cloudy cerebrospinal fluid (CSF) with an opalescent appearance. The CSF analysis showed 646 predominantly fresh red blood cells/µL, 682 leukocytes cells/µL, CSF glucose was 26 mg/dL and 3558 mg/L CSF proteins.The empirical Ceftriaxone-Vancomycin treatment did not improve the patient's condition and was later modified to Ampicillin following the identification of L. monocytogenes within the CSF culture. The treatment was subsequently escalated due to the persistence of altered neurological signs through the association of Meropenem which drastically changed the dynamic of the disease, leading to a complete recovery. **Discussions :** Although Ampicillin is known to be the first-line treatment in L. monocytogenes infections, in this particular case the bacteria seemed to be more susceptible to Meropenem. Another particularity resided in the fact that the patient had no risk factors that would justify a invasive infection with this etiology. **Conclusions:** The presented clinical case highlights the effectiveness of antibacterial treatment and the importance of rapid diagnosis of Listeria monocytogenes meningoencephalitis even in the presence of factors that would typically rule out this diagnosis.

Keywords: Meningitis, Meropenem, Listeria monocytogenes, Ampicilin

THE UNDERLYING SURPRISE OF REPETEAD RESPIRATORY INFECTIONS- PATENT DUCTUS ARTERIOSUS IN A 14 YEAR OLD TEENAGER- CASE PRESENTATION

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Introduction: Congenital heart deffects are one of the most common health issuess in pediatrics. Amongst this cathegory falls the persistance of ductus arteriosus, a pathology that is usually solved physiologically in a few days or weeks after birth. Its persistance after this period is solved either by medication or by surgery, as fast as posible for each child. It is uncommon in developed countries to get to teenage period with this problem unsolved. Adolescents with congenital heart defects present unique diagnostic challenges, particularly when complicated by recurrent respiratory infections and social vulnerabilities. **Case Report:** We present a case of a 14-year-old male with a patent ductus arteriosus (PDA) who experienced bronchopneumonia, febrile syndrome, and glomerulonephritis. Despite multiple hospitalizations, his PDA remained undiagnosed until his recent presentation, fact that has exposed him to some risks. Upon admission, the patient exhibited dramatic abdominal symtomatology, overshadowing the signs of respiratory distress and cardiac affections. Pacient presented reduced bilateral vesicular murmur and basal bilateral crepitant rales on auscultation. Laboratory investigations revealed mild neutrophilia, lymphocytopenia, and elevated inflammatory markers. Radiographic and CT findings were suggestive for pulmonary desease but shown no indication of heart damage. The concerning facts were represented by mild ascites and high blood pressure (147/88mmHg) due to which, after the infirmation of acute surgical abdomen, cardiology consult was requested. Ecocardiography showed the particularity of this case, represented by PDA. Aortic bycuspidy was also present. After further investigations, the high blood pressure was attributed to poststreptococcal glomerulonephritis. The evolution was favorable under antibiotic treatment for bronchopnumonia and diuretics. **Discussions :** This case underscores the diagnostic challenge of identifying congenital heart defects such as PDA in adolescents even with a sugestive history of recurrent infections, all placed in the social context. Multidisciplinary collaboration and comprehensive care are essential for optimizing outcomes in such cases. Furthermore, the presence of PDA may complicate the management of concurrent respiratory and renal conditions, necessitating a tailored approach to treatment. **Conclusions:** Despite the complexity of the case and the presence of PDA, the patient's renal function stabilized, with a favorable prognosis for glomerulonephritis. However, surgical correction of the PDA, even tho much needed, was deferred due to the patient's social circumstances. This case highlights the importance of timely diagnosis and management of persistent ductus arteriosus and underscores the need for holistic care in vulnerable populations.

Keywords: Patent ductus arteriosus, bronchopneumonia, teenager, glomerulonephritis

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