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25th – 29th March 2020

Târgu Mureș, Romania

BOOK OF ABSTRACTS

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BASIC MEDICAL SCIENCES

THE PREVALENCE OF MEDULLARY THYROID CARCINOMA IN MURES COUNTY (1990-2019)

Ana-Maria Sandu¹, Ramona Teodora Catana, Nechifor-Boila Adela, Eموke Andrea Szasz¹, Angela Borda¹

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Background: Medullary thyroid carcinoma (MTC) is a rare C-cells derived neuroendocrine cancer, accounting for 2-3% of all thyroid malignancies, according to WHO. Most of MTCs are sporadic, but 30% are heritable and some of MTCs are associated with MEN2 due to RET gene mutations. **Objective:** The aim of our study was to assess the prevalence of MTC in the Department of Pathology, Târgu Mureş Emergency County Hospital over a 30 year period. **Material and methods:** Clinico-pathological data were retrieved from database registries and original pathological reports from the Department of Pathology, Târgu Mureş Emergency County Hospital, between January 1990 and December 2019. Age at diagnosis, gender and tumor histological type were all evaluated. Descriptive statistics were used to summarize the study data. In order to calculate the prevalence of MTCs and their epidemiological trend the 30 year study period was divided equally into 3, generating time intervals of 10 years each. **Results:** 1177 thyroid carcinoma cases were registered in our Department over the study period. Out of these, 46 (3.90%) cases were MTCs; 33 (71.73%) cases occurred in females and 13 (28.27%) in men. The mean age at diagnosis was 51.36 years old. Regarding the epidemiological trend of MTCs in our institution, 3 (6.53%) cases were diagnosed between 1990 and 1999, 16 (34.78%) cases between 2000 and 2009 and 27 (58.69%) cases between 2010 and 2019. **Conclusions:** Although MTC is a rare type of thyroid cancer, our data has demonstrated an increasing trend in the prevalence of MTCs in our Department in the last 10 years, compared to the previous years. Most of the cases in our study occurred in women and revealed a peak incidence between the fourth and sixth decades of life.

Keywords: medullary thyroid carcinoma, prevalence has followed an increasing trend, parafollicular cells

SEROPREVALENCE AND RISK FACTORS OF TOXOPLASMA GONDII INFECTION IN PATIENTS WITH DIABETES MELLITUS TYPE 2 IN WESTERN ROMANIA

Oana Cioloca¹, Ana Alexandra Paduraru, Maria Alina Lupu, Tudor Rares Olariu, Tudor Rares Olariu¹

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Background: *Toxoplasma gondii*, an obligate intracellular opportunistic parasite, infects up to a third of the world's human population. It multiplies asexually within any nucleated human cell, including pancreatic cells. In recent studies *T. gondii* has been proposed as a possible risk factor for type 2 diabetes. **Objective:** The aim of this study was to evaluate the prevalence and risk factors of *T. gondii* infection among patients with diabetes mellitus type 2 in Western Romania. **Material and methods:** The study was conducted from September to December 2018, in the Department of Diabetes and Metabolic Diseases of the County Clinical Emergency Hospital, in Timisoara. Serum samples from 239 patients included in the study were screened for *T.gondii* IgG and IgM antibodies. Participants also completed a questionnaire to obtain information regarding possible risk factors for *T.gondii* infection. **Results:** Of the 239 patients aged 19-90 years (mean=60.3 years), *T. gondii* antibodies were demonstrated in 149(62.3%). The mean age was higher in patients tested positive for *T. gondii* (61.9 years) compared to those tested negative(57.7 years). Seroprevalence was higher in females 84/128 (65.6%) compared to males 65/111(58.6%) and in individuals from rural area 68/100(68.0%) compared to those from urban area 81/139 (58.3%). Significant difference in seroprevalence was found between patients reporting to have cats (71.1%,59/83) and those who did not report having cats (56.7%,68/120)($p=0.04$), between dog owners (73.9%,48/65) and those without dogs (57.3%,79/138)($p=0.029$), between individuals working in agriculture(93.1%,27/29) and those having other jobs (57.5%,100/174)($p<0.001$). Patients eating raw/undercooked meat had a significantly higher *T. gondii* seroprevalence (66.5%,103/155) compared to those with no such habits (50%,24/48)($p=0.042$). **Conclusions:** This report provides the first data regarding seroprevalence and risk factors of *T. gondii* infection in Romanian patients with diabetes mellitus. Risk factors for *T. gondii* infection were having pets, working in agriculture, eating raw/undercooked meat.

Keywords: *Tooplasma gondii*, Diabetes mellitus, risk factors

TRICHINELLOSIS, AN ONGOING PUBLIC HEALTH THREAT IN WESTERN ROMANIA

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Background: Trichinellosis is a food-borne zoonotic disease with a worldwide distribution. It is caused by *Trichinella spp*, a nematode which infects a very broad range of domestic and wild animals. People are accidentally infected when they ingest encysted *Trichinella* larvae from undercooked or raw meat. Depending on the number of infectious larvae consumed in the meat, the symptoms can vary from very mild to extremely severe or even death. The clinical diagnosis of mild cases of trichinellosis may be difficult when pathognomonic symptoms are lacking or are assumed to be a flu or other common illnesses. **Objective:** The aim of this retrospective study was to evaluate the epidemiological aspects of trichinellosis in Western Romania between 2012-2016. **Material and methods:** The study included patients hospitalized and diagnosed with trichinellosis from two counties in Western Romania (Timis and Arad), between 01.01.2012 - 31.12.2006. Clinical and epidemiological data were collected from the medical records of these patients. **Results:** Forty eight patients aged 2-68 years (mean age = 35.1) were included in the study, 56.3% were males and 75% were residents of rural area. The source of infection was pork meat in 93.8% of the cases and wild boar meat in 6.2%. The most frequent symptoms were myalgia(79.2%), fever(60.4%), eyelid edema(52.1%) and headache(37.5%). Leukocytosis was reported in 31(64.6%) patients and eosinophilia $\geq 5\%$ in 45(93.8%). Two (4.2%) patients died. **Conclusions:** This study underlines the need to increase awareness and knowledge of trichinellosis, since the disease continues to affect the health of humans in Western Romania. Health education of the general population and educational programmes for swine breeders are strongly recommended in order to prevent *Trichinella* transmission.

Keywords: Trichinella spiralis,, trichinellosis,, epidemiology

THE CREDIBILITY, COMPLETENESS, AND ACCURACY OF ONLINE INFORMATION ABOUT ALZHEIMER'S DISEASE IN ROMANIAN AND ENGLISH LANGUAGES

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Background: Alzheimer's disease (AD) is one of the 10 leading causes of death in the US that medical experts cannot slow down. When being diagnosed, the internet becomes one of the most important sources of information for the family and later on, only for caregivers. **Objective:** To assess the credibility, completeness and accuracy of the information regarding AD on the Romanian and English language websites addressing the general population. **Material and methods:** The cross-sectional study included 25 websites for each language. Google searches were conducted using appropriate query terms. The websites were rated for completeness and accuracy by two independent evaluators using a structured quality benchmark developed from DSM5 and critically revised by two psychiatrists. Credibility, completeness, accuracy and scores related to symptoms and treatments were computed on a scale ranging from 0 to 10. The student t-test or Mann-Whitney test was used to compare the scores of the Romanian and English sub-samples. The cut-off value for statistical significance was set at 0.05. **Results:** The mean completeness score was 5.0 for the Romanian websites, and 5.2 for the English websites ($p=0.6874$). The mean accuracy score was 5.1 for the Romanian websites, and 5.2 for the English websites ($p=0.8371$). The mean credibility score was 4.4 for the Romanian websites, and 5.6 for the English websites ($p=0.0073$). Regarding the Romanian sub-sample, AD symptoms and treatments section completeness scores were 7.3 and 2.0 ($p<0.0001$) while section accuracy scores were 6.5 and 3.4 ($p=0.0002$). Considering the English language sub-sample, AD symptoms and treatment, section completeness scores were 7.5 and 3.1 ($p<0.0001$) while section accuracy scores were 6.4 and 4.7 ($p=0.0090$). **Conclusions:** The quality of online information about AD was moderate. While two of the scores were slightly higher in the case of English websites, the difference reached statistical significance only in the case of credibility score.

Keywords: consumer health informatics, patient educational resources, Alzheimer's disease

THE QUALITY OF INFORMATION ABOUT HEREDITARY ANGIOEDEMA ON THE ROMANIAN WEBSITES – A REPEATED CROSS-SECTIONAL ASSESSMENT

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Background: As an inherited rare disease, hereditary angioedema is often misdiagnosed. The internet may play an important role in early detection and treatment. **Objective:** The main aim of the study was to assess the availability and quality of online information about hereditary angioedema as of December 2019. Also, the study tested whether there was any improvement in the quality of information compared to 2011. **Material and methods:** The study was designed as a repeated cross-sectional, observational study, with first assessment in 2011, and the second one in 2019. Queries were conducted using "angioedem ereditar" as a search term on www.google.ro. A quality benchmark was developed with the contribution of experts from the Romanian Hereditary Angioedema Reference Center. The completeness and accuracy of each website were rated by two evaluators using a common set of instructions. Inter-rater agreement was tested using Cohen's kappa statistic and a consensus evaluation was performed for websites with a kappa coefficient <0.8. The normality of the data was tested using the Kolmogorov-Smirnov test. Scores were compared using the student t-test and the Mann-Whitney test. The threshold value for statistical significance was set at 0.05. **Results:** The mean completeness score was 4.3 in 2011 and 5.0 in 2019. The mean accuracy score was 6.2 in 2011 and 5.6 in 2019. Changes in completeness and accuracy scores over the studied period (2011 to 2019) were not statistically significant (p=0.3133 and 0.5197 respectively). The number of websites with both completeness and accuracy scores over 7.5 was 2 in 2011 and 3 in 2019. **Conclusions:** Overall, the quality of information about hereditary angioedema on the Romanian websites was low and did not improve from 2011 to 2019. However, the evaluators were able to identify as many as 2 or 3 websites providing complete and accurate information about the condition.

Keywords: hereditary angioedema,, consumer health informatics,, patient educational resources,, quality of health-related information.

PLAYING THE ODDS IN GLIOBLASTOMA HISTOPATHOLOGICAL DIAGNOSIS

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Background: Glioblastoma (GB) is the most common primary intrinsic brain tumour, whilst also being the most malignant glioma subtype, due to its rapid growing nature, infiltrating abilities, resistance to radiotherapy and chemotherapy, and pungent progression from diagnosis to death. However, there is a slight but significantly important difference in the prognosis time-span range depending on the actual GB subtype (small cells glioblastoma, glioblastoma with neuroectodermal component, multinucleated giant cells glioblastoma, gliosarcoma, epithelioid sarcoma, and glioblastoma multiform-GBM). **Objective:** The aim of this study is to determine whether or not prevalence for a specific subtype of GB exists, establishing if glioblastoma mostly showcases subtypes targeting exclusively the emerging cellular line. Thus, it follows to decide if the best-prognosis subtype may also be the most common in patients. **Material and methods:** A total of 103 tumoural resections was examined, from patients operated of GB during 2019, at the Emergency Clinical Hospital 'Prof. Dr. Nicolae Oblu', Iasi. All pathological products have been prepped and sectioned using the paraffin method, as a histopathological approach. From the standpoint of an immunohistochemical examination, a series of tests have been used to measure the GFAP and EDGF, the binding index Ki67 and the activity of tumour protein P53. **Results:** There were examined 47 females and 56 males from various age groups, ranging from 20 to 80 years old, with a prevalence of appearance centred around 50-60's in both genders. As for the histological classification, the most poignant type was GBM -28 cases-followed closely by gliosarcoma -22 cases- and multinucleate giant cell glioblastoma -18 cases- **Conclusions:** The study has shown an increased prevalence for the most aggressive type of GB, namely, GBM, known for its considerably bad prognosis. Consequently, it has been proven, despite initial suppositions, that wreaking havoc into brain's histological structure leads to an overall impairment of multiple cellular lines, rather than one solely.

Keywords: tumour, glioblastoma, subtype, histopathological diagnosis

CLINICAL PRESENTATION OF CALCIFIC HAND TENDINOPATHY

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Background: Calcific tendinopathy is most frequently determined by calcium pyrophosphate deposits. Metabolic and endocrine pathologies, particularly involving the thyroid gland have an increased association with calcium pyrophosphate deposition disease. Hand involvement has been described in the English literature since 1924. The most common sites for calcific hand tendinopathy have been reported for the following muscles: flexor carpi ulnaris, flexor digitorum, extensor pollicis longus, flexor pollicis longus, and abductor pollicis brevis. **Objective:** In our study we aimed to assess the sites of hand calcific tendinopathy by radiological imaging and establish a pattern of clinical presentation. **Material and methods:** 43 individuals with radiographic proof of hand calcific tendinopathy were included in the study and were tested for the following laboratory markers: thyroid stimulating hormone, free thyroxine, anti-thyroid peroxidase antibodies, serum ferritin, total serum calcium, ionized calcium, serum phosphate, magnesemia, intact parathormone, ESR, C reactive protein, complete blood count, creatinine, alkaline phosphatase. Demographic data, constitutional symptoms, character of symptoms and associations with connective tissue disease were also recorded. **Results:** 68% were women, with ages between 51 and 69 years. Most patients were asymptomatic on presentation, only 14% showing clinical evidence of tendinitis. 35% patients associated a connective tissue autoimmune disease. 27% patients presented thyroid disorders, out of which 50% presented autoimmune thyroiditis. The most common site for calcific tendinosis was extensor pollicis longus tendon, 45% patients presenting radiographic proof of calcific tendinopathy in this area. **Conclusions:** Extensor pollicis longus tendon is the most common site for calcific tendinopathy, however an acute presentation is uncommon. Autoimmune pathologies have a frequent association with calcific hand tendinosis, particularly autoimmune thyroiditis.

Keywords: Asymptomatic calcific hand tendinopathy, Extensor pollicis longus, Autoimmune thyroiditis

HEPATIC CYSTIC ECHINOCOCCOSIS IN ADULT PATIENTS IN WESTERN ROMANIA

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Background: Cystic echinococcosis(CE) is a complex, severe, chronic and potentially lethal disease caused by *Echinococcus granulosus* larvae. The disease has a cosmopolitan distribution and continues to be a major public health problem in many countries. Cysts may be localized in any organ or structure. However, the liver is affected in about 70% of the CE cases, the right lobe more commonly than the left. Romania is recognized as a highly endemic area due to high rates of echinococcosis in humans and animals. **Objective:** The aim of the present study was to evaluate the epidemiological aspects of hepatic CE in patients from Western Romania. **Material and methods:** Clinical, laboratory and epidemiological data were collected from the medical records of 56 adult patients diagnosed with hepatic echinococcosis and admitted in 4 surgical clinics in Timisoara between January 1st 2015 and December 31st 2019. **Results:** The 56 patients aged 20 to 82 years (mean=47.8±16.1years), 33(58.9%) were females and 39(69.7%) came from rural area. Thirty six (64.3%) patients had cysts in the right hepatic lobe, 14(25%) patients in the left hepatic lobe, whereas in 6(10.7%) cases cysts were localized in both lobes. One (1.8%) patient presented pulmonary hydatid disease associated. Complications have been reported in 12(21.4%) patients: biliary fistula, jaundice, anaphylactic shock, hives. Management of hydatid cysts involved cystectomy in 39(69.6%) patients, percutaneous procedure in 12(21.4%), combined method in 4(7.1%) and "watch and wait" method in one. Chemotherapy with albendazole was administered in 20(35.7%) patients. **Conclusions:** Hepatic CE continues to be a substantial cause of morbidity and a major public health problem, having a higher prevalence in females and rural area in Western Romania. Public Health Authorities should improve monitoring CE in order to evaluate and design targeted prevention and control actions.

Keywords: hepatic cystic echinococcosis, public health problem, Western Romania

DECONTAMINATION PROPERTIES OF COPPER AND ITS APPLICABILITY IN HOSPITALS

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Background: Taking into consideration the alarming rate of the increase of antibiotic resistance in bacteria, it is necessary to research new ways of controlling nosocomial infections. In this respect, we have tested decontamination properties of copper as a continuous, passive antimicrobial agent. **Objective:** We are aiming at proving antibacterial properties of copper, on multiple species of bacteria with various resistance to antibiotics. **Material and methods:** Through experiments, we have tested the resistance of micro-organisms to copper, collecting samples at 15 minutes time frames, using an inoculum containing the studied bacteria and the copper plate, compared to a sample of the same bacteria and a stainless steel plate. These samples were inoculated on the growth medium and following the incubation, the colonies were counted. **Results:** Copper had a strong impact on bacteria without antibiotic resistance (Methicillin sensitive *Staphylococcus aureus*, *Escherichia coli*, *Acinetobacter baumannii* and *Pseudomonas aeruginosa*), killing over 90% of the micro-organisms within 45 minutes. And observation revealed at 15 and 30 minutes time frames a high percentage of modified morphology colonies. The decreasing in the number of colonies was 20% in the case of bacteria with high resistance to antibiotics (*Providencia sp.* and Methicillin resistant *Staphylococcus aureus*). **Conclusions:** Our experiment revealed that copper has good antimicrobial properties on the bacteria without antibiotic resistance, that is why we suggest using it for cladding surfaces with which the patient and the medical staff come into contact in medical units. To support this proposal, further research, on a larger scale, analyzing multiple species of bacteria with different antibiotic resistance, should be carried out in order to accurately measure the limits of this decontamination method. The purpose of this modification in the medical units is to decrease the number of hospital-acquired infections, thus reducing the usage of antibiotics and with it the risk of developing antibiotic resistance in bacteria.

Keywords: Copper, Decontamination, Nosocomial infections, Bacteria

INTRACELLULAR CYTOKINE SYNTHESIS IN FRESHLY ISOLATED VERSUS CRYOPRESERVED HUMAN LYMPHOCYTES

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Background: Peripheral Blood Mononuclear Cells (PBMCs) produce various cytokines which play key roles in immune homeostasis. PBMC can either be stimulated directly after isolation or frozen for later use. However, cryopreservation may have negative effects on cell functionality, including cytokine synthesis. **Objective:** The following pilot study aims to investigate the potential differences in cytokine synthesis between ex vivo stimulated fresh and cryopreserved lymphocytes. Moreover, it may serve to improve our cellular processing techniques and protocols for lymphocyte cytokine-production assays. **Material and methods:** PBMCs were obtained by Ficoll cell isolation from heparinated blood from 7 healthy subjects. Samples were divided into two groups: one half went further for activation (Fr), while the other half was cryopreserved for 4 weeks (Cr). Fr-PBMCs were activated immediately after isolation, while Cr-PBMCs were activated after thawing and cell resting for 2 hours at 37°C. After activation, cells were fixed and permeabilized. Intracellular cytokine staining (ICS) was performed using PE-conjugated antibodies for Interleukin-2 (IL-2), Tumor Necrosis Factor-alpha (TNF- α) and Interferon-gamma (IFN- γ). All samples were analyzed within 24 hours on a BD FACSAria III cytometer. Lymphocytes were gated based on FSC/SSC and cytokine-producing cells were counted as percentage (%) of singlet lymphocytes. **Results:** On average, a significantly greater percentage of Fr-lymphocytes was shown to produce IL-2 (Fr 43% vs Cr 28.1%, $p=0.022$). However, there were no significant differences between Fr- and Cr-lymphocytes regarding TNF- α (Fr 25.6% vs Cr 19.5%, $p=0.14$) and IFN- γ (Fr 11.3% vs Cr 13%, $p=0.42$). **Conclusions:** This pilot study showed that the utilised ICS protocol elicits a satisfactory cytokine response, with detectable and adequate production of cytokines, from PBMCs. Providing that IL-2 based assays are required, lymphocyte activation using fresh cells is recommended.

Keywords: Peripheral Blood Mononuclear Cells, PBMC, Cytokine, Cryopreservation

AN EVALUATION OF THE MICROBIOTA OF PERSONAL COSMETIC PRODUCTS

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²

Background: Cosmetic products are a routine part of everyday life for many women. They come into intimate contact with one's skin and therefore their potential to act as a reservoir for microorganisms should be evaluated. **Objective:** The aim of this study is to determine whether make-up products currently in use are harbouring microorganisms, and subsequently, to establish if any of said microorganisms are pathogenic. **Material and methods:** 76 cosmetic products from 16 volunteers were sampled and inoculated in thioglycolate broth vials, which were then stored at 37°C for 24 hours. Growth patterns were observed and noted, before each suspension was transferred onto Blood agar, CLED agar, and Sabouraud agar plates and incubated. Bacterial species were identified using macroscopic and microscopic analysis of the cultures, followed by metabolic testing and an antibiogram. **Results:** 48 of the 76 samples were positive for bacterial growth, with a further two being positive for fungal growth, where *Candida spp.* were present in both cases. Regarding bacteria, opportunistic *Staphylococcus* strains were prevalent, with *S. haemolyticus* (n=17) and *S. epidermidis* (n=15) forming an overwhelming majority. Methicillin-sensitive *S. aureus* (n=5) was isolated sporadically, as were viridians streptococci (n=5). An antibiotic-sensitive strain of *Pseudomonas aeruginosa* was also isolated, along with various saprophytic flora including *Bacillus spp.* (n=3), *Neisseria spp.* (n=2), *Micrococcus spp.* (n=2), *Serratia spp.* (n=2), *Sarcina spp.* (n=2). **Conclusions:** The cosmetic products tested were a viable medium for bacterial and fungal growth. This result is to be expected due to the transfer of flora between the user and cosmetics, however in immunocompromised patients, the sharing of cosmetic products may pose a risk due to the opportunistic pathogens present. More concerning was the finding of high virulence *S. aureus* species not normally present in the flora, indicating that further research in this area is needed to evaluate the potential for the growth of MRSA.

Keywords: microbiology, cosmetic, bacteria, fungi

ANTHROPOMETRIC STUDY OF FRONTAL SINUSES – A TOOL FOR FORENSIC ANTHROPOLOGY – PILOT STUDY

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Background: Post-mortem identification is an essential, although difficult forensic procedure and it is an obligation in terms of law and social norms. One of its first and most important steps is gender estimation. For a correct identification, ante mortem and postmortem medical records must be compared. However, commonly used procedures may be inconclusive in cases when severe post-mortem changes have occurred. **Objective:** The aims of this study were to determine the sexual dimorphism of the frontal sinuses and assess the accuracy their measurements would have for gender determination, considering their unique pattern. **Material and methods:** A sample of 40 CT scans consisting of Romanian adult subjects was selected from a database of a Neurosurgical Hospital, which were operated in Radiant DICOM. The anthropometric evaluation (the length, the height and the width) of the frontal sinuses was carried out by using CT scans, with patients in prone position without sedation or contrast medium. **Results:** The statistical analysis showed that the accuracy of frontal sinuses measurements to identify gender was good. The morphometric evaluation of the frontal sinuses showed high correlation with gender and age. A regression equation was developed with impressive results (R²= 0.230, SEE=0.43). The preliminary results are impressive. The equation gives very small errors - close to zero, which means that the methods provide reliable results for gender and age identification. **Conclusions:** Computerized Tomography measurements of frontal sinuses may be useful to facilitate gender and age identification in forensic medicine. We suggest that they can be used for gender determination when the whole skeleton is not available. Also, the anthropometric assessment of the frontal sinuses illustrated the importance of forensic radiology, especially in the field of anthropology.

Keywords: frontal sinuses, computerized tomography, forensic anthropology, gender determination

COMPARISON OF TWO TECHNIQUES FOR THE DETECTION OF EPSTEIN-BARR VIRUS

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Background: Epstein-Barr virus(EBV) is a globally spread lymphotropic herpes-virus, known as the cause of infectious mononucleosis. EBV is also associated with various malignant diseases such as Burkitt lymphoma and Hodgkin's lymphoma. Although ELISA (enzyme linked immunosorbent assay) is frequently used in Romania for investigating EBV infection, CLIA method (chemiluminescent immunoassay) is the gold standard. **Objective:** This study aims to compare ELISA and CLIA methods for EBV investigation. **Material and methods:** Venous blood samples were drawn from 79 patients in 7mL tubes with no additives. EBV-VCA IgG and IgM levels were determined with both ELISA (kits from Demeditec, Germany) and CLIA (Architect, Abbott, USA) methods. ELISA's performance as a diagnostic test was compared to the gold standard CLIA. All statistical tests were performed using MedCalc software. **Results:** Two samples with equivocal test results were excluded. For IgM, ELISA had a specificity of 100% and sensibility of 71.62% with a positive predictive value (PPV) of 100% and a negative predictive value(NPV) of 12.5%($p=0.02$). For IgG, the specificity and sensibility of ELISA were 94.29% and 21.53%, respectively, with a PPV of 81.82% and a NPV of 50%($p=0.058$). **Conclusions:** : The two methods for EBV infection diagnosis are not comparable. ELISA can not be used to rule out the infection, therefore it is recommended that CLIA be used instead, since its PPV and sensibility are higher.

Keywords: Epstein-Barr, ELISA, CLIA

DOES THE INTERNET PROVIDE THE ADEQUATE SOURCES OF INFORMATION ABOUT HUMAN PAPILOMA VIRUS? A CROSS-SECTIONAL STUDY OF HIGH SCHOOL STUDENTS' DOCUMENTATION METHODS REGARDING HPV

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Background: It is estimated that 50-80% of sexually active individuals will acquire HPV infection throughout their lives, this being the most frequent sexually transmitted disease. HPV is responsible for approximately 95% of cervical cancers worldwide, Romania ranking first in Europe in terms of mortality caused by it. Thus, HPV infection is considered to be a public health issue that could be improved by intensively informing the population on this topic. **Objective:** The aim of this study is to identify the information sources about HPV infection utilized by high school students. **Material and methods:** We performed a cross-sectional study using two questionnaires with slight differences between genders consisting of 19, respectively 22 questions, which targeted 554 high school students. The questions referred to the information methods the adolescents benefited from and general aspects regarding HPV infection as transmission routes, symptoms, prophylaxis, risk factors. **Results:** The study included both genders with a preponderance of female students (50,55%) with ages between 14 and 19 of which 78% study within the Sciences Department and 22% study within the Humane and Social Department. Furthermore, most of them (66,1%) originate from the urban area. From their answers at the question "Where did you find out about HPV?" resulted that 56,3% of the participants acquired information by internet browsing, 18,95% of them were educated by their teachers while the rest has never heard of it. Chi-square tests of independence were performed to examine the relation between the internet documentation about HPV and different variables as gender, studying department and areas of origin yet none of them had a statistical significance. **Conclusions:** Considering that none of the studied correlations were statistically significant, we can assume that internet access has no restrictions and no matter the gender, studying department or area of origin students chose it as their main source of information regarding HPV infection.

Keywords: HPV, documentation sources, internet

INTRACELLULAR CYTOKINE PROFILE OF T LYMPHOCYTES AFTER EX VIVO SHORT-TERM MAXIMAL STIMULATION WITH PHORBOL MYRISTATE ACETATE

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Background: Peripheral Blood Mononuclear Cells (PBMC) have the ability to synthesize various cytokines upon stimulation, which have a critical role in cell signaling and the regulation of the immune response. Since PBMCs can be used as a model of immune function, their isolation and ex vivo stimulation is an accepted technique for analysing antigen response, autoimmune disorders or cancer. **Objective:** The aim of this study was to investigate the variability of CD4+/CD8+, T-lymphocytes synthetic capacity for the following cytokines: interleukin-2 (IL-2), tumor necrosis factor-alpha (TNF- α) and interferon-gamma (IFN- γ). **Material and methods:** PBMCs were obtained from 16 healthy subjects using the Ficoll cell isolation protocol. Cells were stimulated with Phorbol Myristate Acetate (PMA) and Ionomycin (ION) in the presence of Brefeldin-A (BFA). This resulted in higher concentrations of intracellular cytokines. After 4 hours of incubation the stimulated PBMCs were stained using AlexaFluor700-anti-human-CD3, PerCP-Cy5.5-anti-human-CD4 and APC-Cy7-anti-human-CD8 antibodies. After cell fixation and permeabilization, intracellular staining was performed using PE-conjugated anti-cytokine antibodies (anti-IL-2, anti-TNF- α , anti-IFN- γ). Cell viability was assessed at two stages - after Ficoll isolation and after activation with PMA/ION/BFA - using FITC-Annexin-V/Propidium Iodide double staining. The samples were analysed with a BD FACSAria III cytometer. **Results:** On average, a significantly higher proportion of CD4+ cells was found to produce IL-2 and TNF- α , compared with CD8+ cells (61.5% \pm 5.8 vs. 25% \pm 5.6 and 26.9% \pm 11 vs. 7.5% \pm 3.3 respectively, $p < 0.0001$ for both). On the contrary, IFN- γ was produced by a higher proportion of CD8+ cells compared with CD4+ cells (8.4% \pm 3.9 vs. 6.8% \pm 3.2, $p = 0.01$). **Conclusions:** This study determined that the PBMCs from healthy subjects displayed a significant cytokine response to ex vivo stimulation with PMA/ION/BFA and while both CD4+/CD8+ subpopulations synthesize all three cytokines, their proportion varies.

Keywords: PBMC, cytokine, ex vivo stimulation, T lymphocyte

NEUROENDOCRINE TUMORS (NET) DISCOVERED INCIDENTALLY IN CHILDREN APPENDECTOMY SPECIMENS

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Background: Neuroendocrine tumors are a rare group of neoplasms, typically encountered in young people, who might experience symptoms of acute appendicitis. **Objective:** This study aims to determine the frequency, the morphological and immunohistochemistry profile of children NET's, incidentally discovered in the pathological examinations, between 2017-2019. **Material and methods:** A retrospective analysis of 816 cases was conducted using data from the database of the pathological department, held by Emergency Clinical Hospital for Children Cluj-Napoca. The probes were interpreted in hematoxylin-eosin staining, and for those tumor suspected, immunohistochemical staining with specific antibodies was performed. **Results:** From 816 cases of appendectomy, surgically removed between 2017-2019, 4 appendiceal specimens have presented, microscopically, nest architecture of well differentiated, polygonal, large cells, with large nuclei and lax chromatin, separated by a fine connective-vascular stroma. The cells were positive for chromogranin and synaptophysin; neuron specific enolase marker performed in one case showed positivity; S-100 antibody performed in 2 of the cases was positive on the peripheral nests sustentacular cells; one of the cases had also CD 56 positive antibody, and for differential diagnosis CK7, CK 20, estrogen and progesterone antibodies were effectuated, with a negative result. The marker of cell proliferation, Ki-67, in one case had a value of 3%, and was 0% in the other probes. There were no aspects of lymphovascular, perineural and mesoappendiceal invasion. The frequency of well differentiated neuroendocrine tumor (G1) discovered incidentally in the surgical specimens was 0.49%. **Conclusions:** Well differentiated neuroendocrine tumors encountered in children appendiceal specimens are a rare group of neoplasm, with positive cells for neuroendocrine specific markers. Due to low Ki-67 proliferation marker, tumors have a reduce risk of recurrence.

Keywords: appendectomy specimens, Neuroendocrine tumor, children

THE UTILIZATION OF A NOVEL IMAGEJ ALGORITHM TO ELUCIDATE DNA-DAMAGE FROM CONFOCAL MICROSCOPY IMAGES

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Background: Confocal fluorescence microscopy (CFM) is a research technique that allows one to optically section thick specimens and to create high-contrast images in three dimensions. This technique is used to identify γ H2AX - a phosphorylated form of H2AX histone that appears on sites of double-strand breaks (DSB) of the DNA. Following the acquisition of the data, the sections are merged and 3D images are formed. These images are subjected to a multi-step analysis protocol using ImageJ, a public domain Java image processing program. **Objective:** The objective of this study is to present the image analysis protocol used in order to elucidate DSB. **Material and methods:** Peripheral blood mononuclear cells previously isolated on Ficoll were used in this study. The cells were cultivated in RPMI-1640 medium and the lymphocytes were activated with CD3/CD28 antibodies. The cells were treated with different concentrations of tert-Butyl hydroperoxide and analyzed using CFM. Following the acquisition of the data from CFM, the Z Project utility of ImageJ is used to create 2D images of the samples. ImageJ can display, edit, analyze and process 8-bit, 16-bit and 32-bit images. It can open most image formats and can calculate area and pixel value statistics. ImageJ can also generate density histograms and line profile plots. **Results:** Using ImageJ, an image analysis protocol was developed, starting from a simplistic RGB pixel counting, to using size and circularity thresholds, masks, pixel intensity and debris analysis. **Conclusions:** The ImageJ image analysis protocol was successful in elucidating DNA damage and other parameters like nuclear size and debris. This protocol can be used in future studies to assess the sensitivity of cells to different genotoxic and chemotherapeutic agents.

Keywords: confocal microscopy, ImageJ, DNA-damage, image analysis

HISTOLOGIC SUBTYPES OF GASTRIC CANCER: A RETROSPECTIVE STUDY

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Background: In spite of the development of therapeutic strategies, gastric cancer (GC) continues to be associated with a poor prognostic, remaining a leading cause of cancer-related death worldwide. **Objective:** We aimed to highlight the clinicopathological aspects of GCs diagnosed in our department during three years. **Material and methods:** All consecutive GCs diagnosed between 2014-2016 in the Pathology Department of the Clinical County Emergency Hospital of Targu Mures, Romania, were included in the retrospective evaluation. **Results:** During 3 years, 318 cases (92 biopsies and 226 surgical resections) of primary gastric tumors were diagnosed, in patients with a mean age of 66.38 ± 10.42 years (range 26-87 years) and a M:F report of 2.38:1. The predominant histological type was adenocarcinoma (n=222, 69.81%). There were 55 cases of poorly cohesive carcinomas (17.30%), out of which 31 cases were signet ring cell carcinomas-subtype. The rest of the cases were mixed carcinomas (n=15, 4.72%), neuroendocrine carcinomas (n=8, 2.52%), undifferentiated carcinomas (n=5, 1.57%), gastrointestinal stromal tumors (n=5, 1.57%), primary gastric lymphomas (n=3, 0.94%), adenosquamous carcinomas (n=2, 0.63%), gastric carcinomas with lymphoid stroma (n=2, 0.63%) and one mixed adeno-neuroendocrine carcinoma (0.31%). **Conclusions:** Despite the vast heterogeneity of gastric tumors, the main histological subtype is adenocarcinoma, affecting mostly men over their 6th decade. This work was supported by a grant of the Romanian National Authority for Scientific Research, CNCS □ UEFISCDI, project number 20 PCCF/2018, code: PN-III-P4-ID-PCCF-2016-0006.

Keywords: adenocarcinoma, gastrointestinal stromal tumor, poorly cohesive carcinoma

OBSERVATION OF GENOTOXICITY ON LYMPHOCYtic POPULATIONS - A COMPARATIVE ANALYSIS BETWEEN FLOW CYTOMETRY AND CONFOCAL MICROSCOPY

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Background: Reactive oxygen species illicit double-stranded DNA breaks (DSB), leading to cell cycle arrest in proliferating cells during G1, S or G2 phases. Depending on the severity of DNA damage, cell cycle arrest will proceed to DNA repair or apoptosis. One of the key cellular events required in DNA damage response (DDR) to DSBs is the histone H2AX phosphorylation, which produces γ -H2AX foci. **Objective:** γ -H2AX identification by flow cytometry and confocal microscopy are specific techniques that can discern DSBs generated by intracellular oxidative process. These DSBs can occur in proliferating cells and during DNA fragmentation in apoptotic cells. The purpose of the study was to compare the effectiveness of both techniques and the effect of genotoxicity on lymphocyte populations. **Material and methods:** Peripheral Blood Monocytes Cells (PBMC), 10^6 /ml were cultivated in RPMI-1640 medium with CD3/CD28 antibodies for T-lymphocyte activation. Activated lymphocytes were exposed to different concentrations of Tert-butyl-peroxide: 0 μ M - 2000 μ M. After immunofluorescent labelling for proliferation γ -H2AX-foci (anti-phospho-histone-H2AX mouse monoclonal IgG), apoptosis% identification and MeFI (median-fluorescence-intensity) were analyzed in FACS Aria III. γ -H2AX foci analysis by TCS SP8 confocal equipment was performed on slides tagged with anti-phosphohistone-H2AX mouse monoclonal IgG followed by secondary antibodies with Alexa-488-fluorophore and 4',6-diamidino-2-phenylindole (DAPI) for cell nuclei staining. **Results:** A dose related response was associated with lesions and apoptosis. From 0-100 μ M there was an increase in lesions. At 100-2000 μ M a decline in lesions and increase in apoptosis was observed. There was an observed inter-subject lymphocytic variability at high doses. **Conclusions:** Both techniques were successful in identifying γ -H2AX foci DNA lesions, which were induced by the genotoxic compound. Confocal microscopy is suited for low level detection of γ -H2AX expression, while flow cytometry is faster and provides efficient analysis of high level γ -H2AX expression. The lymphocytic reaction to higher levels of genotoxicity revealed a trend that warrants further investigation, to elucidate the extent of lymphocyte regeneration

Keywords: confocal microscopy, flow cytometry, γ -H2AX

EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS: A RARE SIDE EFFECT OF MONTELUKAST

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Background: Montelukast is an anti-asthmatic drug that uses the mechanism of antagonisation of leukotriene receptors. The pharmacological effect is obtained by inhibiting the inflammatory mediators of bronchoconstriction. Montelukast is generally considered a safe drug without many side effects. Although, there were adverse effects reported. A link between Eosinophilic granulomatosis with polyangiitis (EGPA), formerly known as Churg Strauss syndrome, a rare form of eosinophilic vasculitis associated with asthma, is strongly suspected. Several case reports and case series describe the onset of EGPA in patients receiving montelukast for the management of difficult-to-control moderate-to-severe asthma. **Objective:** The aim of this presentation is to highlight the complexity and the severity of EGPA as a side effect after montelukast administration. **Material and methods:** We performed a systematic search on indexed, pre-reviewed literature on Medline and DLAD4U (disease list automatically derived for you), with the terms "eosinophilic granulomatosis montelukast" and "Churg-Strauss syndrome montelukast". After we have selected the articles, duplicates and those that were not written in English were removed, we remained with a number of 32 papers. Among them, 27 were case reports presenting a total of 34 cases. The other five were one letter to the editor, one workshop summary, one epidemiologic study and two reviews. **Results:** There are six criteria for the diagnosis of EGPA: asthma, eosinophilia > 10%, paranasal sinusitis, pulmonary infiltrates, histological proof of eosinophilic vasculitis, mono or polyneuropathy. We found that the majority of publications are case-reports and there are no up-to-date reviews regarding the approached subject, the topic needing to be actualized. **Conclusions:** EGPA is a rare syndrome with a specific range of

manifestations. Even if rare, it is important to keep in mind this diagnosis as a possible side effect at asthmatic patients that were prescribed montelukast.

Keywords: Eosinophilic granulomatosis with polyangiitis, Montelukast, Asthma, Side effect

CLINICOPATHOLOGICAL FEATURES OF MATURE B CELL LYMPHOMA

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Background: Mature B-cell lymphomas account for over 90% of diagnosed neoplasms worldwide and represent 4% of all cancers reported annually. These Non-Hodgkin Lymphomas affect both sexes equally and can have very different clinical behavior, from indolent to highly aggressive, therefore treatment based on specific histological subtype and stage of the disease is required. **Objective:** The purpose of our study is to emphasize the importance of histological subtype and immunohistochemical profile of the tumor in clinicopathological behavior. **Material and methods:** We performed a retrospective study based on the analysis of the pathology reports between 2016-2019 with the diagnosis of mature B-cell lymphoma, from the Pathology Department, Emergency County Hospital of Târgu Mureş. We evaluated the histological subtype, the origin of the neoplasm, the immunohistochemical profile of the tumor, the clinicopathological features according to the sex and age of these patients. **Results:** The study included 160 patients with ages between 4-84 years old, while the mean age was 58.29 years. Most of the affected patients aged 61-80 years. There was no statistically significant difference between the sexes ($p>0.5$). In 48.12% of the cases, the neoplastic proliferation affected the lymph nodes, while 51.88% revealed extranodal involvement. The most frequent subtypes were diffuse large B-cell lymphoma non-germinal center (DLBCL-NGC) and follicular lymphoma. Only 35 cases (21.87%) were proven to be indolent regarding clinicopathological behavior, while 125 cases (78.13%) presented an aggressive behavior. **Conclusions:** The most common histological subtype in the Pathology Department was DLBCL-NGC, with extranodal involvement and aggressive clinicopathological behavior.

Keywords: lymphoma, aggressive, extranodal

BREASTFEEDING IN FIRST TIME MOTHERS - PREVALENCE AND ASSOCIATED FACTORS.

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Background: Breastfeeding is the feeding of babies and young children with milk from a woman's breast. □ Recommended by the World Health Organization as the optimal mode of infant feeding, maternal breast milk represents the best nourishment for the newborn baby during its first six months, as it offers several benefits for the health and well-being of babies and mothers. **Objective:** The aim of this study is □□□ explore □□□□ factors associated with breastfeeding more than six months □□□□ to assess the prevalence of □□□□□□□□□□□□ among first time mothers nowadays. **Material and methods:** An anonymous questionnaire □□□□ sent on-line to □□□□□□□□ from all over the country, containing questions regarding socio-demographic aspects, □□□□□□□□ of newborn feeding information and questions about breastfeeding. A number of 1.796 completed questionnaires were collected. We have eliminated mothers over 30 years old and mothers who had more than one child. □□□□ study sample included 570 first time mothers under the age of 30. **Results:** The prevalence of breastfeeding more than six months was 60% in the present study, 33,68% of mothers breastfed less than six months and 6,31% of mothers never breastfed their baby. Married women and the ones who sought after breastfeeding help and support from GP or pediatrician found to be significantly associated with the practice of breastfeeding more than six months (p < 0.05). **Conclusions:** The majority of the first time mothers practice breastfeeding more than six months nowadays. Maternal breast milk □□□□ the priceless gift given by mother to her newborn. The breastfeeding effects positively on health, economic development and ecology and therefore it is a benefit for children, women and whole society in short-term and long-term perspective.

Keywords: breastfeeding, mothers, pediatrician, newborn

THE ADOLESCENT BETWEEN ABORTION AND EDUCATION

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Background: This study aims to evaluate the role of education in the prevention of abortion in adolescents, knowing that abortion is a public health problem in the world, with an estimated 42 million abortions in 2018. From 1958 to 2008, in Romania has registered approximately 22 million abortions. **Objective:** The importance of education in abortion prevention and the training of young adolescents, as well as the primary role of school and society in the stages of evolution. **Material and methods:** To conduct this study, we used as a method of psychological investigation a questionnaire consisting of 10 questions answered by 172 people. The target group consisted of adolescents aged between 15 and 20 years, mostly high school students and / or students. **Results:** : Out of the total number of participants in the questionnaire, 89.5% are women and 10.5% are men. Based on the questions asked, 45.3% stated that they had never been informed about what abortion means, about the risks of abortion and about its consequences. 61.6% believe that the right time to be informed about sex education and abortion is general school, and 78.5% are convinced that programs that include sex education would reduce the number of abortions. 64.5% would be willing to participate in such programs, and those responsible for initiating them should be first the school, then the family. **Conclusions:** The study shows that the school plays an essential role in the process of initiating programs, absolutely necessary for sex education and abortion prophylaxis at an early age, young people being willing to participate in such programs. The initiation of such programs would increase the level of readiness, while reducing the number of abortions

Keywords: abortion, adolescence, education

THE ONCOLOGICAL PATIENT BETWEEN DIAGNOSIS AND LIFESTYLE

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Background: The diagnosis of cancer has a negative emotional resonance on patients because they associate it with pain, alteration of self-esteem, fear of death. The psycho-social approach of the oncological patients represents a very important aspect in the treatment of the oncological diseases, besides the medicinal or surgical treatment. **Objective:** The analysis of the patients' attitude related to: communicating the cancer diagnosis, affecting their daily lives, major changes that have occurred in the patients' life, psychically, as well as their lifestyle. **Material and methods:** The study included 75 patients diagnosed with an oncological disease over the age of 15 years. We used a questionnaire with 10 questions distributed online, after receiving the agreement by the administrators of the group: "Temerarii-The Romanian Community of Cancer Survivor Young People". The questions were related to the evaluation of the psycho-social aspects of the patients with oncological disease. **Results:** From the obtained results, it is noted that 70.7% are female and 29.3% male. Although the communication of cancer diagnosis has a negative emotional impact among patients, 93% of respondents prefer to be notified by the specialist for the first time and only 2% feel protected if they do not find out. At the same time, the daily life of patients is affected due to the symptoms that occur during the disease, so 31.2% of patients felt that their daily life has changed a lot, 24.7% Much, 26% Moderate. Also, 72% of respondents believe that cancer requires a change in lifestyle and diet, 28% did not change their lifestyle due to lack of money. **Conclusions:** Following the study, it is noted that the psychosocial impact of the oncological diagnosis is quite strong, which causes major changes in the patient's life after the disease, as well as their dissatisfaction within the medical system, urgently requesting the psychological support.

Keywords: patient, oncology, impact, psycho-social

THE QUALITY OF CERVICAL CANCER ONLINE PATIENT EDUCATION RESOURCES

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Background: Studies have shown that many patients with cancer retrieve information about their disease from the Internet and the information they find may influence their treatment decisions. Although Romania has one of the highest morbidity and mortality rates for cervical cancer the quality of online patients education resource has not been investigated. **Objective:** The objective of the study was to assess the completeness and accuracy of the information about cervical cancer on the Romanian and English language websites aimed at patients. **Material and methods:** The investigation was designed as an observational, cross-sectional study. Queries were conducted using "cancerul de col uterin" and "uterine cancer" on www.google.ro and www.google.com respectively. The first 25 Romanian and 25 English language websites were included in the analytical sample after screening the websites listed on the Google results pages against the inclusion and exclusion criteria. The websites were assessed for completeness and accuracy using a structured quality benchmark. The assessment was carried out by two independent evaluators using a common protocol. Completeness, and accuracy scores were computed and reported on a scale ranging from 0 to 10. Scores were compared using student t-test or Mann-Whitney test. The threshold for statistical significance was set at 0.05. **Results:** Completeness scores for the Romanian and English websites were 4.5 and 6.4 respectively ($p=0.0165$). Accuracy scores for the Romanian and English websites were 7.0 and 6.8 respectively ($p=0.511$). The number of websites having both completeness and accuracy scores above 7.5 was 3 in the Romanian sample (arasnet.ro, doctorate.ulbsibiu.ro, and iocn.ro) and 4 in the English language sample (wikipedia.org, webmd.com, obgyn.onlinelibrary.wiley.com, and frontiersin.org). **Conclusions:** The overall completeness and accuracy of cervical cancer-related websites in Romanian and English language were moderate. Completeness scores were significantly higher on the English language websites. The number of websites with high completeness and accuracy was slightly higher among the English sample.

Keywords: Cervical cancer, consumer health informatics, online patient education resources

THE IMPACT OF THE SOCIAL AND EDUCATIONAL STATUS ON ROMANIANS DIETARY FIBER INTAKE

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Background: Dietary fiber is the part of the plant that the human body cannot digest or absorb. It is generally found in foods like fruits, vegetables or whole grains. Fiber is classified as soluble and insoluble. Dietary fiber is extremely beneficial in prevention of constipation and many chronic diseases like diabetes, cardiovascular diseases, cancer or obesity. Nutritionists recommend a daily fiber intake of 38 grams for men up to 50 years old and of 25 grams for women in the same age. **Objective:** The aim of this study is to evaluate the correlation between Romanians dietary fiber intake and their level of education, to determine their knowledge about fiber and what are the most important sources of information for people of different educational background. **Material and methods:** This is a transversal study based of a questionnaire that evaluates the eating habits of 670 participants of different educational backgrounds, their general knowledge about dietary fiber and their most trustworthy sources of information on this subject. **Results:** A significantly higher percentage of the college undergraduates declared a higher intake of fruits and vegetables per week than the other educational categories $p<0.001$, $r=0.20$, but high-school graduates turned out to be more informed about dietary fiber in general $p<0.001$, $r=0.30$. While determining the most trustworthy sources of information, women and men with superior studies give credit to newspapers and the internet. **Conclusions:** There is need for a more active intervention on all educational groups in order to increase both their daily intake of dietary fiber and their general knowledge of this subject as a means of developing a healthy lifestyle.

Keywords: Dietary fiber, Education, Information sources

HOW INFORMATIVE ARE THE ROMANIAN AND ENGLISH LANGUAGE WEBSITES PRESENTING GENERALIZED ANXIETY DISORDER SYMPTOMS AND TREATMENT TO THE GENERAL POPULATION?

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Background: Most psychiatric patients use the Internet for mental health related reasons and online information seeking is preferred by those with stigmatized illnesses because of the anonymity this media provides. People with health anxiety seem to look for information online more often than others. Nevertheless, the quality of online information about anxiety disorders is poorly investigated. **Objective:** The study aimed to measure the quality of information about generalized anxiety disorder presented to the general population in Romanian and English. **Material and methods:** A literature-based content quality benchmark including symptoms and treatment sections was developed and revised by two psychiatrists. Fifty websites, half Romanian and half English, were rated for completeness and accuracy by two independent evaluators using a common set of instructions. Inter-rater reliability was checked using Cohen's kappa test. General and section quality scores were reported on a 0 to 10-point scale. Mann-Whitney test was applied to compare the two language sub-samples. The threshold for statistical significance was set at 0.05 **Results:** The mean completeness and accuracy scores were 2.7 and 6.8, respectively. The English language subsample had significantly higher completeness scores compared to the Romanian language subsample (4.3 vs 2.5; $p=0.0002$). The mean completeness and accuracy scores of the symptom section were 3.4 and 7.0, respectively while those of the treatment section were 1.8 and 6.4, respectively. The mean completeness score of the symptom section was significantly higher than the completeness score of the treatment section (3.4 vs 1.8; $p=0.0002$). **Conclusions:** The findings of this first study evaluating the quality of online information about generalized anxiety disorder in Romanian and English may be useful in raising the patients' awareness about the lacunary and inaccurate character of web resources. Also, the study suggests that health professionals should provide guidance regarding the cautious use of the internet for health-related purposes.

Keywords: consumer-health informatics, quality of online health-related information, generalized anxiety disorder, internet

PARKINSON'S DISEASE ON THE WEB - A COMPARATIVE STUDY OF ROMANIAN AND ENGLISH LANGUAGE ONLINE PATIENT EDUCATION RESOURCES

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Background: The internet has become a popular source of health-related information. **Objective:** The primary goal was to assess the completeness and accuracy of information regarding PD on the Romanian and English language websites addressing people with the condition and their caregivers. The secondary goal was to test whether the English language PD educational web resources may provide more complete and accurate information than the Romanian ones. **Material and methods:** The study was designed as a cross-sectional, observational study. Queries were conducted using "boala Parkinson" and "Parkinson's disease" as search terms on www.google.ro and www.google.com respectively. We used a set of inclusion and exclusion criteria for selection of the websites. A quality benchmark was developed from the evidence-based literature with the contribution of two neurologists and one health education professional. The websites were rated for completeness and accuracy by two evaluators using a common set of instructions. Inter-rater agreement was checked using Cohen's kappa test and a third, common evaluation was carried-out when the kappa coefficient of a website was less than 0.8. Kolmogorov-Smirnov test was applied to decide whether parametric or non-parametric tests were appropriate. The student t-test or Mann-Whitney test was used to compare the scores of the Romanian and English language sub-samples. The threshold for statistical significance was set at 0.05. **Results:** The general mean completeness scores were 3.9 and 5.4 for the Romanian and English language sub-samples respectively ($p=0.0047$). The general mean accuracy scores were 7.0 and 7.3 for the Romanian and English language sub-samples respectively ($p=0.6345$). **Conclusions:** Overall, the quality of information about PD on the Romanian and English language websites was low regarding completeness and

moderate regarding accuracy. The English language online patient educational resources had significantly higher completeness scores and about the same level of accuracy as the Romanian ones.

Keywords: consumer health informatics,, Parkinson's disease,, patient educational resources

PERSONALITY DISORDERS - PROGNOSTIC FACTOR IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Background: Rheumatological diseases are associated with lower quality of life levels. Psychiatric disturbance are frequently observed in these patients. An individual's personality is influenced by experiences, environment (surroundings, life situations) and inherited characteristics. A person's personality typically stays the same over time. A personality disorder is a way of thinking, feeling and behaving that deviates from the expectations of the culture, causes distress or problems functioning, and lasts over time. Personality disorders are mental health conditions that affect how people manage their feelings and how they relate to other people or to different diseases, such as systemic lupus erythematosus an autoimmune disease. **Objective:** The main purpose of the research is to examine the impact of personality disorder on the quality of life of patients with systemic lupus erythematosus as a prognostic factor. **Material and methods:** One hundred thirty (130) people were examined using a screening test called SCID-5-SPQ : Structured clinical interview for DSM-5 screening personality questionnaire. They were divided into two groups: fifty (50) people in the main group, patients with systemic lupus erythematosus and eighty (80) people in the comparison group, people without SLE. **Results:** The screening study showed that among 50 patients from the main group with SLE, they all have at least one personality disorder. The most predominant personality disorder is obsessive-compulsive (OC), which is present at 46 patients and represents 92% and the second that we found is avoidant personality disorder with 40% (20 patients). On the other hand, in the comparison group, only 3,75% (3 patients) have OC and 2,5% (2 patients) with avoidant personality disorder. **Conclusions:** Our study confirmed the fact that people with personality disorders, such as obsessive-compulsive or avoidant, are more liable to SLE and those disturbance can also represent a prognostic factor for the patients.

Keywords: systemic lupus erythematosus, personality disorder, obsessive-compulsive

BIPOLAR DISORDER ON THE ROMANIAN AND ENGLISH WEB – A CROSS-SECTIONAL ANALYSIS

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Background: People with psychosis search the Internet to find information regarding their symptoms and treatments. The quality of information may have a significant impact on the patients' health care decisions especially when they receive no advice from medical professionals. Although studies suggest that psychoeducation promotes compliance to treatment and positive disease outcomes, the quality of online information regarding bipolar disorder was not systematically investigated. **Objective:** The objective of the study was to evaluate online information regarding bipolar disorder. **Material and methods:** The study was designed as an observational, cross-sectional investigation and included 25 Romanian and 25 English language websites, obtained after searching on Google using 'tulburare bipolara' and 'bipolar disorder' as search terms. The websites were graded for credibility, completeness, and accuracy by two independent evaluators using the same quality benchmark developed with the contribution of two psychiatrists. The credibility, completeness and accuracy scores were reported on a scale ranging from 0 to 10. Mean and standard deviations were computed for continuous variables. Student t-test or Mann-Whitney test were applied to compare the scores using Graphpad InStat Demo. The statistical significance level was set at 0.05. **Results:** The mean credibility, completeness and accuracy scores for the Romanian websites were 5.0 (SD 1.9), 7.7 (SD 1.8), and 4.4 (SD 0.9) respectively while for the English websites the scores were 6.4 (SD 1.4), 8.7 (SD1.4), and 5.5 (SD1.0) respectively. Compared to the Romanian websites, the English websites scored significantly higher on all quality measures (credibility p=0.0059; completeness p=0.022; accuracy p=0.0001). **Conclusions:** While English websites scored significantly better on all three criteria assessed, especially completeness, the overall quality of information about bipolar disorder on the

Romanian and English language websites was moderate. Accuracy levels were particularly of concern therefore consumers should exercise caution when taking medical decisions based on information found online.

Keywords: bipolar disorder, health-related information, e-health, internet

CLINICAL - MEDICAL

CARDIAC RESYNCHRONIZATION THERAPY, A MATTER OF PRECISION: CASE REPORT

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Background: Dilated Cardiomyopathy (DCM) associated with left bundle branch block (LBBB) combines dysfunctions of both depolarization and contractility, leading to a severely impaired left ventricular (LV) function and eventually refractory heart failure (HF). Cardiac resynchronization therapy (CRT), if properly implemented, may be significantly helpful in this situation. **Objective:** Our presentation aimed to highlight the benefits of a complex assessment of the LV function not only based on the ejection fraction (LVEF) but also on strain imaging, for better optimizing the interventional treatment. **Material and methods:** We investigated a 70-year old patient who suffers from non-ischemic DCM, LBBB, moderate mitral and tricuspid regurgitation and NYHA class III HF symptomatology with maximal HF treatment. We measured the LVEF to be 25% and proceeded with the LV function and dyssynchrony assessment using also the speckle tracking technique. A significantly altered strain pattern demonstrated the consequences of ventricular dyssynchrony due to LBBB, ventricular dilation, and parietal fibrosis. The lateral wall has been proven to have the most delayed postsystolic contraction, which caused apical rocking, lowering the systolic efficiency and increased stress on certain areas of the myocardium. **Results:** Following extended clinical, electrocardiographic and ultrasound evaluations, the patient received CRT, as indicated by the guidelines, with the placement of the coronary sinus lead in a lateral branch to serve the LV lateral wall. After the procedure, the improved LV geometry was reflected in the accelerated ventricular depolarization with a shorter QRS duration and a significantly more synchronous contraction, thus improving global longitudinal strain, the LVEF with more than 5%, the valvular function and the patient's symptomatology. **Conclusions:** A careful patient evaluation provides data that can be used to achieve an optimal lead placement on the latest contracting wall and matching it with other regions which are the key to acquiring proper resynchronization.

Keywords: Refractory Heart Failure, Speckle tracking, Global Longitudinal Strain, CRT

IS THE USE OF SUPERA PERIPHERAL STENT SYSTEM A CHALLENGE FOR SURGERY IN THE TREATMENT OF FEMOROPOPLITEAL LESIONS?

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Background: An impressive number of people around the world suffer from lesions of the femoropopliteal artery. The prevalence of this disease continues to rise. Although a range of endovascular interventions have been performed at the femoropopliteal segment, their durability has been negatively influenced by the biomechanical forces acting at this level. Supera Peripheral Stent is a small nitinol interwoven tube, an innovative technology, which could provide improved clinical results. **Objective:** The aim of this presentation is to assess the efficiency of Supera stents in comparison with surgical interventions for the femoropopliteal artery and underline whether or not this is a competitive tool. **Material and methods:** Supera Stents have been used to treat 5 patients at the Interventional Cardiology Department presenting with common femoral artery and popliteal artery stenosis. They have been diagnosed based on their clinical manifestations such as claudication and paraclinical investigations: the ankle- brachial index, and conventional angiography for confirmation of the lesions. The periprocedural results were optimal resulting in treatment of the lesion and lack of stenosis. The long-term outcomes of the procedure were monitored using ultrasound. **Results:** Supera stents provide advantages like: a higher degree of comfort for the patient and shorter hospitalisation, whereas the surgical treatment is invasive, implies a longer hospital stay and an increased risk of complications, such as wound infection. However, the price of the Supera stents exceeds the surgery costs. **Conclusions:** Supera Peripheral Stents proved feasible, safe due to reduced stent fractures and even a better option than surgery for the treatment of femoropopliteal lesions.

Keywords: Supera Peripheral Stent, Open Surgery, Femoropopliteal Lesions

PORTAL CAVERNOMA : MANAGEMENT, COMPLICATIONS AND TREATMENT OPTIONS IN PEDIATRIC PATIENTS

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Background: Portal cavernoma (PC) occurs when the native portal vein is thrombosed and myriads of collateral channels develop in the porta hepatis to bypass the occlusion. It can cause extrahepatic portal hypertension in children or young adults. Without the proper management, the condition can lead to esophageal varices and upper gastric bleeding. One of the most important risk factors for PC is neonatal umbilical catheterisation. **Objective:** The aim of our presentation is to highlight the importance of a strict case management in children with PC, including prophylactic treatment, regular follow-ups and a surgical plan. **Material and methods:** We present a case of an 11 year old, male patient admitted to Luis Turcanu Children's Hospital after coming in the emergency department with an episode of severe hematemesis, melena, fever (temperature=38,7°C), coughing, headache, dizziness and weakness. His blood work-up showed anemia (HGB= 8,4g/dl), leukopenia(WBC=1,69*10³/uL), thrombocytopenia (PLT=56*10³/uL). From his history, we find out he was diagnosed with portal cavernoma and splenomegaly in 2014(following neonatal umbilical catheterisation and a genetic profile indicating a high risk of thrombophilia) and with secondary esophageal varices in 2016, however prophylactic treatment for varices rupture was never initiated. **Results:** Urgent endoscopic treatment of the bleeding was performed and the patient was stabilised. After the urgent episode was resolved, prophylactic treatment with propranolol was initiated, the patient's vitals improved and he was discharged. The patient will continue his treatment and seek surgical treatment. **Conclusions:** Portal cavernoma is a serious condition that should be watched closely and managed by a surgical team, before any life threatening complications are installed.

Keywords: Portal cavernoma, Upper gastrointestinal bleeding, Portal hypertension

HELICOBACTER PYLORI GASTRITIS: THE INTERACTION OF BILIARY REFLUX WITH CHRONIC DRUG CONSUMPTION

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Background: Nowadays it is well established that *Helicobacter (H) pylori* infection predispose individuals toward gastric cancer (GC) preceded by a cascade of precancerous lesions-atrophic gastritis and intestinal metaplasia. Also, it has been reported that bile acid reflux into the stomach may exert additional influence on the risk of development of premalignant gastric lesions over *H. pylori* infection. **Objective:** The aim of this study was to assess the influence of primary duodeno-gastric reflux (DGR), as well as other clinical factors (age, male sex, concurrent medication, social habits, comorbidities) in *H. pylori*-related gastric precancerous lesions. **Material and methods:** The study included 138 patients with premalignant gastric lesions based on histological diagnosis and divided into 2 groups: Group A (92 patients)-positive for *H. pylori* infection on biopsy and negative for biliary reflux on upper digestive endoscopy; Group B (46 patients)-positive for both *H. pylori* infection and biliary reflux. **Results:** There was no significant difference in terms of age and gender between the two groups ($p > 0.05$), but there was a significant difference regarding the drugs consumption, namely clopidogrel consumers were statistically more frequent in group A in comparison with patients presenting both *H. pylori* infection and biliary reflux ($p = 0.03$, OR=2.73, 95%CI 1.08-6.88). Statins were statistically significant prescribed more often in Group A ($p < 0.01$, OR=6.06, 95%CI 3.02-12.17), although a high frequency was observed in both groups: 81.52% - Group A and 69.56% - group B. Anaemia was not associated with DGR and neither did dyspeptic symptoms ($p > 0.05$). Among studied comorbidities, only respiratory disease was statistically significant associated with *H. pylori* infection, but not with biliary reflux ($p = 0.04$, OR=2.27, 95%CI 1.04-4.95). **Conclusions:** In the studied population, primary DGR seems not to influence anaemia or clinical features in *H. pylori* positive patients with precursor GC lesions. Dyspeptic symptoms could not be associated more frequent neither with *H. pylori* infection nor with DGR.

Keywords: *Helicobacter pylori*;; gastritis;; biliary reflux.

APPROACHING THE PAEDIATRIC PATIENTS WITH ADRENOGENITAL SYNDROME: MEDICAL AND SOCIAL CHALLENGES

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Background: Congenital Adrenal Hyperplasia (CAH) is a cluster of inherited autosomal recessive enzyme deficiencies which result in adrenogenital syndrome, characterized by cortisol deficiency, virilisation and sexual ambiguity. The most common form of CAH is 21-hydroxylase deficiency, followed by deficiency of 11-hydroxylase. According to National Organisation of Rare Disease, 21-hydroxylase deficiency has an incidence of 1:10.000 people in U.S. and Europe. Nevertheless, Yupik Eskimos have an incidence as high as 1 in 282. **Objective:** Considering the multiple types and subtypes of CAH and the social impact this syndrome carries on the patient and his family, we want to underline the necessity of neonatal screening, early diagnosis and treatment, close follow-up and psychotherapy. **Material and methods:** Citing a 2014 retrospective study on a cohort of 588 CAH patients, the causes of death among these are adrenal crisis (42%), cardiovascular complications (32%), cancer (16%) and suicide (10%). We compare the outcomes of CAH patients in St. Mary Children`s Hospital (Moldova's tertiary referral hospital) for the last 10 years. Furthermore, we discuss 4 cases of 21 and 11-hydroxylase deficiency. **Results:** We found 25 cases of CAH, of which only one with 11-hydroxylase deficiency and 24 with 21-hydroxylase deficiency. Civil sex had to be changed after genetic testing in two cases. Complications and outcome of the patients are in close relationship with time of diagnosis and type of deficiency. Patients and their families have difficulties accepting this condition and they often give up medical follow-up. The only way to prevent sexual ambiguity in severe forms of disease is treatment during pregnancy. **Conclusions:** There is no national neonatal screening program for CAH, but 23 countries in Europe have one. Early treatment is the key to normal physical and psychological development, but in utero therapy provides the best outcome for the patient, avoiding both perinatal mortality and a life of social distress.

Keywords: sexual ambiguity, adrenal crisis, gender identity, enzyme deficiency

EVALUATION OF HYPERTENSION AND CARDIOVASCULAR COMPLICATIONS IN PATIENTS WITH SLE-STATISTICAL APPROACH , EPIDEMIOLOGIC AND THERAPEUTIC PROFILE

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Background: Systemic lupus erythematosus is a multisystemic complicated disorder that plays a critical role due to a fixed pattern linked to other structures. **Objective:** Even though lupus is a chronic autoimmune disease, it's often associated with "waxing and waning", a term that stands for flares and remission. This study aims to rule with a variety of complications of the cardiovascular system and hypertension, which are remarkably affecting women in their climacteric period and childbearing age. **Material and methods:** The research was conducted at the Rheumatology department, County Hospital in 2018-2019, with the purpose of a cohort estimation and drug effect on patients. The collected information was synthesized than in a database of 100 participants with a contrast of 90 F: 10 M. During the observation period, the treatment goal was to minimize as much as possible the previous clinical findings, especially the ones associated with a poor prognosis. **Results:** The following drugs, Hydroxychloroquine(HCQ), Azathioprine (AZA), Glucocorticoids and Corticosteroids, have been observed to have better outcomes. They were shown to be safer and more effective in treatment with minimal side effects. Hydroxychloroquine use has been associated with an improvement in most of the hypertensive patients, lowering the blood pressure, which is suggested to be a consequence from a dropping of immunological tolerance. **Conclusions:** The Administration of Hydroxychloroquine (200 mg) was observed to lower the blood pressure and not to treat it while having a hypoglycemic effect. The thrombo- protective effect of the chloroquinines is shown to have a favorable outcome in reducing the risk of thromboembolic incidents and preventing flares.

Keywords: Rheumatology, Systemic lupus erythematosus, Hypertension, Cardiovascular complications

CLINICAL MANIFESTATIONS AND OUTCOME IN PR3-ANCA ASSOCIATED VASCULITIS WITH RENAL AND NEUROLOGICAL INVOLVEMENT- CASE REPORT

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Background: Vasculitis is a consolidation of autoimmune disorders that results in the inflammation of the blood vessels followed by ischemia. It can also be caused by a secondary response to a primary disease. **Objective:** - Follow the serologic tests in ANCA associated vasculitis; -Interpretation of the pathogenesis of the ANCA associated vasculitis; -Perceive the induction and maintenance therapies for ANCA associated vasculitis; -The difference phenotype between PR3 ANCA (Proteinase 3 ANCA-vasculitis) and MPO (Myeloperoxidase ANCA-vasculitis); **Material and methods:** The studied case identifies a 39 years old female who presented herself to the Rheumatology Department (Ludus) with common symptoms associated with vasculitis. In September 2019 she experienced an episode of high blood pressure, oliguria, dyspnea, and joint pain followed by an increased level of Creatinine and Urea. The administered treatment included Prednisone 20mg/day and MTX 7.5mg. On October 12, 2019, her health condition worsened. In the Emergency Department, she presented the following symptoms: Paresthesia of the right side of the body Decreased muscle strength on the right side of the body Pain in the elbow and left knee BP:140/90 mmHg On October 28, 2019, during a scheduled appointment with Rheumatology Clinic, Targu Mures County Hospital laboratory investigations showed increased creatinine, urea, and oliguria. The patient was then transferred to the Nephrology Department for emergency dialysis (consisted of up to 8 sessions) with follow-ups. Induction therapy was also administered consisted of: Methylprednisolone 500mg and Cyclophosphamide 400 mg + Alpha D3 0.25 mgr. 1-0-1/day **Results:** Following a percutaneous renal biopsy, no incidents were reported. Based on the laboratory investigations, characteristics, imaging, and biopsy a diagnosis of PR3-ANCA associated vasculitis were made, including renal and neurological involvement. **Conclusions:** This study aimed to be retrospective "cross-sectional" using information gathered for patient care. Patient' medical condition got improved and full recovery of the renal function with immunosuppressive treatment.

Keywords: VASCULITIS, RHEUMATOLOGY, PR3-ANCA, CASE REPORT

HIGH-QUALITY SCHIZOPHRENIA-RELATED PATIENT WEB RESOURCES ARE RARE AND NOT EASY TO FIND

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Background: People with stigmatized illnesses, including schizophrenia, are more likely to use the internet to obtain information about symptoms and medications, delaying professional treatment initiation. **Objective:** The study aims to assess the completeness and accuracy of the schizophrenia-related Romanian and English language websites and to test whether compliance with widely accepted credibility criteria and Google rankings are reliable proxy indicators of completeness and scientific accuracy. **Material and methods:** The observational, cross-sectional study includes the first 25 websites of each language, after screening the Google results pages against the inclusion and exclusion criteria. The websites' completeness and accuracy was made by two evaluators, using a quality benchmark developed from DSM5 and revised by two psychiatrists. Cohen's kappa test was used to control the inter-rater agreement and a third evaluation was performed when kappa<0,8. Credibility, completeness and accuracy scores were computed and reported on a 0-10 scale. Correlations between completeness and accuracy scores and between credibility score and Google ranks were tested separately on each language sub-sample applying Pearson or Spearman tests, using 0.05 as threshold for statistical significance. **Results:** For the Romanian and English sub-samples the mean credibility, completeness, and accuracy scores were 5.9;5.0;5.6 and 7.2;6.8;5.9 respectively. None of the Romanian websites had both completeness and accuracy ratings above 7.5 while among the English websites, there were two. Correlation tests applied on the Romanian and English sub-samples produced: credibility vs. completeness scores, $r=0.6446(p=0.0005)$ and $r=0.02(p=0.9242)$; credibility vs accuracy scores $r=0.3006(p=0.1443)$ and $r=0.2453(p=0.2373)$; Google ranks vs completeness scores, $r=-0.2390(p=0.25)$ and $r=-0.0131(p=0.9502)$ and Google ranks vs accuracy scores, $r=-0.1116(p=0.5952)$ and $r=-0.4328(p=0.0307)$. **Conclusions:** The overall completeness and accuracy of schizophrenia-related websites were moderate. Considering that credibility scores and Google ranks were neither consistently nor strongly correlated

with the measures of information completeness and accuracy, they are not reliable proxy indicators of the best Romanian and English schizophrenia websites

Keywords: schizophrenia, credibility criteria, proxy quality indicators, online patient education resources

STÜVE-WIEDEMANN SYNDROME - THE BATTLE BETWEEN DEATH AND GENETICS

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Background: Stüve-Wiedemann syndrome is a rare, severe disorder, characterized by bone deformities and impairment of the autonomic nervous system. The autonomic nervous system is involved in the adjustment and control of the breathing rate and in the process of maintaining the body temperature. This condition is an autosomal recessive disease and is caused by a modification (mutation) in the leukemia inhibitory factor receptor (LIFR) gene. Because STWS is a congenital disorder, the symptoms are apparent from birth, the most life-threatening complications being episodes of respiratory distress, difficulty feeding and swallowing, and episodes of dangerously high body temperature (hyperthermia). **Objective:** The purpose of this paper is to highlight the severity of STWS and the challenges that may appear in the course of attending a patient suffering from this disease. **Material and methods:** We report a case of a 4 year old patient admitted to Louis Turcanu Emergency Children's Hospital Timisoara, having a long history of repeated hospitalizations for aspiration pneumonia, gastro-esophageal reflux, grade III dystrophy, severe psychomotor retardation, gastrostomy of necessity, bilateral corneal leucoma, convulsive syndrome in treatment, pathology incorporated in Stüve-Wiedemann syndrome-genetic testing confirmation in 15.05.2018 - leukemia inhibitory factor receptor gene (LIFR) present. The patient presented with hyperthermia (t=380C), expiratory dyspnea with polypnea, productive cough, prolonged expiration, skin pallor. **Results:** As a severe condition with no specific treatment for, the management is directed towards supportive and palliative care, in this case resulting 50 hospitalizations in the course of 4 years. **Conclusions:** STWS was thought to be a fatal condition causing death during the neonatal period, due to life-threatening complications. Today, survival past the first year of life is more common through genetic testing providing early a correct diagnosis and close management and monitoring of the patient.

Keywords: Stüve-Wiedemann syndrome, LIFR gene, Hyperthermia, Dyspnea

THE ROLE OF THE FAMILY DOCTOR IN COMBATING SMOKING

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Background: Given that family doctors have a big importance in counselling the patients and their families, we conducted a study based on a questionnaire regarding the evaluation of the efficiency of the counselling and prevention methods of smoking through family doctors. We followed the degree of involvement of family doctors in anti-smoking campaigns, and also the time they are investing on counselling active or passive smoking patients. **Objective:** To increase the importance and the efficiency of the family doctors in the prevention of active or passive smoking. **Material and methods:** At the monthly meeting of family doctors in Mures county, on 19.11.2019, we shared a questionnaire composed of ten questions which was completed by 84 family doctors from Mures county, 46 from urban area and 38 from countryside. **Results:** The answers to this questionnaire showed that only 17.86% of family doctors consider that there are sufficient campaigns to inform patients about smoking risks and only one in ten considers that there is enough time for counselling regarding efficient smoking cessation. 3 out of 4 family doctors claim that they identified the status of smoker or non-smoker in each patient and that they offered counselling regarding smoking and what the risks of passive smoking are. 61,9% of family doctors claim that they don't mark the records of smoker patients for them to be approached at a subsequent consultation, and one out of every two specialists state that the re-appointment of medical staff would be an additional motivation to increase the efficiency of counselling. **Conclusions:** Providing funding for the medical staff involved in counselling the patients could increase their degree of involvement. Anti-smoking campaigns should be monitored for their effectiveness.

Keywords: smoking, counselling, campaign

HOW WELL THE "STOP SMOKING" PROGRAMME IS KNOWN AND ITS IMPACT ON THE PRIMARY MEDICAL CARE

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Background: Due to the carcinogenic risk and the increased incidence of smoking amongst all age groups, we have conducted a study in which family doctors participated. Considering that smokers may participate in the "STOP SMOKING" programme free of charge, our intention was to appreciate the degree of familiarity with the above mentioned programme of the doctors that have a long term contact to patients and their families. The study has as a base a questionnaire that evaluates the efficiency of counselling methods and of prevention of smoking.

Objective: Increasing the efficiency of the "STOP SMOKING" programme. **Material and methods:** At the monthly meeting of family doctors in Mures county, on 19.11.2019, we shared a questionnaire composed of ten questions which was completed by 84 family doctors from Mures county, 46 from urban area and 38 from countryside.

Results: Following the processing of the questionnaire results we have concluded that only 1 out of 3 doctors are familiar with the way the "STOP SMOKING" programme is run and have displayed the green line phone number in their office. Fewer than 1 out of 3 doctors consider that patients are sufficiently informed in order to understand the risks and to increase their motivation to give this vice up, and that the number of educational campaigns is insufficient or inefficient at presenting the information to the patients. 71.42% of specialists consider that educating patients on the risks of smoking should start as early as middle school, under 14 years old. 1 in 5 doctors consider that a preschool stage education would also be advised. **Conclusions:** In order to increase the efficiency of anti-smoking campaigns, the periodical evaluation and re-evaluation of the current programmes are needed along with initiation of new programmes that are adapted to the lifestyle changes of the population.

Keywords: smoking, information, prevention, counselling

VACCINATION CONTROVERSIES IN PEDIATRIC PRACTICE

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Background: Vaccination in pediatric practice is a challenging task nowadays taking into account that parents tend to hesitate when it comes to vaccinate their children. **Objective:** The aim of the study is to assess the main controversies that influence the parents' decision to vaccinate their children. **Material and methods:** A survey of 31 questions was addressed to 100 parents whose children were admitted in Pediatrics Clinic, Emergency Clinical County Hospital Târgu-Mureş, between November 2019 and January 2020. **Results:** Regarding the communication with their general practitioner, a number of 85 parents were informed about the national vaccination scheme, but only 74 received information concerning the need for vaccination, while 71 were explained the vaccines side effects. We noticed that only 59 had no doubt in vaccination, while 41 tended to hesitate due to potential side effects. In terms of sources of information on this topic, 40 of them use the internet and social networks. Nevertheless, almost all parents (94) trusted the information provided by physicians ($p < 0,001$), although 28 consider these information not up-dated. Among the most frequent reasons that lead to vaccination refusal, lack of information was the most frequent (52 parents), followed by misinformation (47 parents) and incomplete information (42 parents). **Conclusions:** Doctor-patient communications is the main fact that might influence parents' decision regarding their children vaccination. Thus, a proper communication providing clear and complete information is the key approach in determining parents to vaccinate their children.

Keywords: Controversies, Vaccination, Children, Parents

PARTICULARITIES OF TUBERCULOSIS ENDEMIC IN MUREŞ COUNTY

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Background: Tuberculosis is a widespread disease that affects lungs (pulmonary tuberculosis PTB), but also

extra-pulmonary organs. The diagnosis of TB includes: microscopy in Ziehl-Neelsen stain, culture on Lowenstein-Jensen medium, histopathology/biopsy for highlighting specific granuloma especially in extrapulmonary TB (EPTB), chest x-rays, bronchoscopy or surgery for EPTB. TB requires patient isolation and standardized treatment under strict supervision. **Objective:** We analyzed the particularities of TB endemic, TB location, age/gender distribution, risk factors for TB and evolution under treatment. **Material and methods:** Retrospective study with analysis of TB endemic in Mureş County (2018). **Results:** We found a high incidence of TB (265 cases). 3,4% were children, 96.6% adults with the peak incidence (38%) between 41-60 years. It was a male predominance 69.8%. 50.9% of patients had poor living conditions, 52.5% were smokers (comparative with 25% - the country average). Bacteriology was positive in 68.2% of PTB. In 2018 we diagnosed 13.2% EPTB cases (milliary, osteo-articular, lymph-nodes, pleural, renal, skin TB) comparative to 11.5% in 2017. 82.8% of TB are new-found cases, 11.5% being relapses, 3,4% chronic and 2,3% failure cases. All cases received antibiotics 6-8 months and close monitoring. The common causes for relapses/failure were: poor treatment adherence (27.5%), associated diseases (smoking, silicosis, emphysema, diabetes, alcohol abuse), advanced initial TB forms at the moment of the diagnosis (51.3%) and lack of compliance to the treatment (21.1%). Fatally by TB was low (3%) cause of close monitoring. **Conclusions:** TB still remains an important disease in our region despite its overall decline. Risk factors for TB and for unsuccessfully evolution are smoking, poor life conditions and poor patients' compliance. EPTB includes some severe cases. The optimal management of TB can only be achieved through respecting the national antituberculous program, with case findings, TB confirmation, and correct complete treatment in conjunction with patient compliance.

Keywords: Tuberculosis, Case-finding, Compliance

CORRELATION BETWEEN ELASTOGRAPHY AND LIPID PROFILE IN PATIENTS WITH METABOLIC SYNDROME – REVIEW STUDY

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Background: Metabolic syndrome has become a worldwide issue that affects people of any age. In most of these patients, the alteration of lipid profile leads to intrahepatic fat accumulation resulting in steatosis, steatohepatitis and the development of liver fibrosis. **Objective:** The aim of this study was to perform a systematic review of the literature regarding the diagnosis and evaluation of metabolic syndrome associated with liver steatosis and fibrosis. **Material and methods:** A review of the literature was conducted using a systematic methodology. Data regarding liver steatosis and fibrosis diagnosis and evaluation procedures using invasive and noninvasive methods were analysed. Liver biopsy is currently the standard method of diagnosis for these pathologies but due to the potential complications, several noninvasive methods, such as serum cytokine 18, fibrosis prediction scores using multiple serum biomarkers, ultrasonography, transient elastography (TE) and magnetic resonance elastography have been used as potential diagnosis, evaluation and risk stratification methods. **Results:** Imagistic methods for diagnosis and evaluation were found to be the main focus of liver steatosis and fibrosis studies. Transient elastography is the most used technique in clinical practice. It has shown distinguished performances in advanced liver fibrosis diagnosis and it can predict hepatic complications and decompensation. TE can also diagnose liver steatosis, using a method called Controlled Attenuation Parameter. **Conclusions:** Different methods can be used to diagnose and evaluate patients with metabolic syndrome associated with liver steatosis or fibrosis. However, the noninvasive techniques are nowadays the focus of the clinical studies, TE being the most used due to its high performance and availability.

Keywords: transient elastography, fibrosis, steatosis, metabolic syndrome

DIAGNOSTIC PARTICULARITIES IN MANTLE CELL LYMPHOMA PATIENTS

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Background: Mantle cell lymphoma (MCL) is a rare, aggressive non- Hodgkin`s lymphoma (NHL), with defined variants, atypical presentation, frequent extra-nodal and advanced stage, unpredictable evolution, and response to therapy. **Objective:** Evaluate the primary diagnostic data of patients with MCL. **Material and methods:** The study

is qualitative, retrospective, cohort-type, with a 122 months inclusion period (January 2010- February 2020). Patients included: 20 cases, MCL confirmed by blood/marrow flow-cytometry or immunophenotype in The Pathology Laboratory or/and The 1st Internal Medicine Clinic-Hematology, Clinical Emergency Mures County Hospital Tirgu Mures. Parameters evaluated: demographics (age, gender), histologic subtypes, leukemic picture, Lugano stage, bulky disease presentation, Eastern Cooperative Oncology Group (ECOG) performance status, Mantle Cell Lymphoma International Prognostic Index (MIPI) prognostic evaluation, Charlson Index of Comorbidities (CIC). **Results:** The median age was 70,5 years, and the predominant gender male, 85%. Histology: 45% classic-form, 40% leukemic, and just 15% blastoid, pleomorphic or indolent. Using Lugano criteria stages were mostly advanced: I/II/III/IV: 0%/10%/15%/75 %; B symptoms in 75%, bulky disease in 15%, and palpable splenomegaly were detected in 55% of cases. The main presentation was 20% nodal, 20% extra-nodal, 60% both nodal and extra-nodal. Leukemic blood picture has observed in more than half of cases, 60%. ECOG status was mainly poor: 15 of 20 patients ≥ 2 , the median CIC value was relatively high: 7(4-12), and MIPI prognostic evaluation indicated high-risk disease for 90% of cases. **Conclusions:** In studied MCL cases, patients were especially older, with advanced stage, extra-nodal presentation, leukemic blood picture, and splenomegaly. The high CIC and ECOG, a high-risk MIPI, also confirmed the severity. A proper definite diagnosis and extensive evaluation at diagnosis of this rare variety of NHL are crucial because of the particular management and treatment of MCL.

Keywords: Mantle cell lymphoma, diagnostic, aggressive

DEVELOPMENT AND VALIDATION OF A LUMBAR SPINE FINITE ELEMENT MODEL

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Background: Accurate finite element (FE) modeling of complex biological systems such as the human lumbar spine is challenging, but contribute to the better care of patients. FE method has become an important computational tool in spinal biomechanics. Compared to in vivo and in vitro measurements, FE method serves as a cost-effective, powerful and widely accepted solution. **Objective:** Our goal was to create a workflow which allows us to develop a subject specific osseoligamentous FE model of the lumbar spine. **Material and methods:** Our model is based on the computed tomography (CT) scans of a 24 years old male patient. The geometry was created via segmentation. Sections with different material properties were taken into consideration. The vertebrae included a 1 mm thick cortical shell, a trabecular core, bony and vertebral endplates and the facet joints with an initial gap of 0.5 mm and a 0.25 mm thickness. The intervertebral discs consisted of the nucleus pulposus and the annulus. All the existing ligaments were added to the model. The assignment of the material properties, the boundary conditions and the loads were made according to earlier published papers. **Results:** The results of the L1-L5 model and the L4-L5 motion segment were evaluated with comparison to available data. The range of motion curves were carried out and served as basis for comparison. The investigation shows that the curves have the same magnitude and characteristic as previously published curves. (Rohmann, Spine, 2001; Dreischaff, JoB, 2014; Finley, CMBBE, 2018) **Conclusions:** The results show that the developed model is suitable for future biomechanical analyses and surgical planning. Characteristics of the curves are in a good agreement with previously validated models. The developed FE model has significant importance in the education of engineers and doctors equally.

Keywords: Lumbar Spine, Finite Element Model, Validation

SURGICAL RECONSTRUCTION TECHNIQUE INVESTIGATION AFTER TOTAL EN BLOCK SACRECTOMY WITH THE USE OF THE FINITE ELEMENT METHOD

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Background: Chordoma is often resistant to radiation- and chemotherapy. In order to achieve an optimal oncological result, en bloc resection is required via a surgical procedure. After total sacrectomy the connection between the lumbar spine and the pelvis must be re-established. The surgical stabilization investigated in this

study is the closed loop technique (CLT) developed at the National Center for Spinal Disorders, Budapest. **Objective:** The aim of this study was to develop a complex finite element (FE) model of CLT and to compare the lumbo-pelvic motion and the implant stresses to the results of different reconstruction systems. **Material and methods:** The geometry of the lumbar spine and the pelvis of a 24-year-old male patient were developed using a series of computed tomography scans. The position of the ilia were modified in accordance to the surgery. Subsequently the osseoligamentous FE model of the lumbar spine was developed and validated. CLT was implemented into the model and was tested against multiple defined load cases from the literature. **Results:** The simulation results were compared to previously published values (Zhu et al. 2012). The maximum von Mises stress at CLT is in the same range as the previously published results. Vertical displacement and rotations show broader variety among the different models. **Conclusions:** Higher stress values in CLT may occur but remain under the yield strength of the implant material. The developed model can help in choosing the optimal reconstruction system individually for patients undergoing total sacrectomy. Further studies are planned to compare all the reconstruction systems to the CLT under the same conditions.

Keywords: Sacrectomy, Reconstruction, Finite element analysis, Biomechanics

FROM HYPEROSMOLAR COMA TO VENOUS THROMBOEMBOLISM: A TURN-UP FOR THE BOOKS

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Background: Arterial thromboembolic complications of Diabetes Mellitus are so frequent that are usually considered as a part of the clinical features. However, venous thrombembolism has been seldom reported as a complication to ketoacidosis or hyperosmolar status (often caused by central venous catheter insertion). **Objective:** Our aim is to present a case of an extensive deep venous thrombosis located to the superior limbs, complicated with pulmonary embolism at a 52 year-old female with diabetes mellitus at its onset, presenting to Emergency Department of Sibiu with ketoacidosis coma. **Material and methods:** The background of the patient consists of: hypothyroidism under treatment and class 3 obesity. The principal diagnosis at the moment of presentation is: diabetic coma, ketoacidosis, hyperosmolar status (the glycemia = 2100 mg/dl) and moderate dehydration. Glycated hemoglobin is 12,7%. A venous catheter is inserted in the left subclavian vein, but in the following 2 days, the patient's status worsens, accusing acute dyspnea, palpitations, right upper limb tumefaction. Moreover, an induration is felt in the right subclavian region. The ECG shows sinus rhythm, QRS axis: -45°, heart rate: 90bpm, major RBBB. Oxygen saturation falls spontaneously from 96% to 86%. Cardiac markers results depict D-Dimers > 300mg/dl. Doppler Echocardiography shows right enlarged cavities (RV=39 mm), ascending aorta ectasia, first grade aortic insufficiency and circumferential pericardic liquid in small quantity. Venous Doppler Echography demonstrates thrombosis at the level of the right jugular vein and right subclavian vein. Abdominal echography confirms the diagnosis of acute cephalic pancreatitis. Besides, hemoculture tests reveal the presence of gram positive cocci and nonhemolytic Staphylococcus Albicans. **Results:** Infectious status, hyperosmolarity, hyperviscosity associated with dehydration, pro-inflammatory status in the context of pancreatitis, the obesity, all have led to hypercoagulability and venous thromboembolism. **Conclusions:** Venous thromboembolism, a rare complication in diabetic patients with hyperglycemic and hyperosmolar complications, may appear independent of the insertion of central venous catheter.

Keywords: Hyperosmolar coma, Venous thromboembolism, Central venous catheter

POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME (PRES) IN A TWIN PREGNANCY COMPLICATED BY PREECLAMPSIA-ECLAMPSIA: CASE REPORT

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Background: Posterior reversible encephalopathy syndrome (PRES) is a rare clinical and neuro-radiological condition. PRES is often associated with hypertensive encephalopathy, preeclampsia and eclampsia. **Objective:** We aimed to emphasize the importance of clinical prompt recognition of the condition and the need for aggressive treatment in case of a twin pregnancy complicated by preeclampsia - eclampsia and PRES. **Material and methods:**

A 33 years old pregnant woman presented at 35 weeks gestation with headache, lower extremity swelling and visual disturbances. The background of the patient consisted of thrombophilia treated with Clexane 0,8 ml. Her blood pressure was 196/136 mmHg. She was admitted to the SCJU from Sibiu with a diagnosis of pre-eclampsia. Magnesium-sulfate therapy and antihypertensive treatment were initiated. The patient was presented a generalised tonic-clonic seizure. Diazepam was administered and after 20 minutes, the second generalised tonic-clonic seizure occurred. The emergency cesarean section was performed under general anesthesia. Laboratory investigations showed- transaminase (GOT=142 U/L, GPT=107U/L), platelets (116.000/mm³), LDH (550 U/L), D-dimer (1600-3200 ng/ml) and a mild anemia .After the neurological examination the patient was conscious and presented spatial and temporal disorientation, visual prosopagnosia, episodes of absence preceded by psychomotor agitation and inappropriate behavior . MRI scan of the brain showed atypical features including hyperintensities of the occipital lobes and the right temporal lobe . **Results:** The patient was seen in follow up for three months after hospital discharge. At that time she was normotensive. MRI scan of the brain showed complete resolution of the lesions .The MRI result supported the diagnosis of reversible posterior leucoencephalopathy syndrome. **Conclusions:** The case of a pregnant woman presenting a normal prenatal evolution was complicated by developing preeclampsia, eclampsia, eventually PRES. Diagnosis of PRES is based on the presence of clinical features of acute neurologic compromise, abnormal neuroimaging findings, and complete reversibility of lesions after prompt treatment.

Keywords: Posterior reversible encephalopathy syndrome (PRES, eclampsia, twin pregnancy, seizure

PULMONARY ALVEOLAR PROTEINOSIS: FROM HOUSE PAINTING TO DIFFUSE LUNG DISEASE

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Background: Pulmonary alveolar proteinosis (PAP) is a rare disease characterized by the accumulation of periodic acid-Schiff (PAS)-positive lipoproteinaceous material within the alveoli resulting in hypoxemic respiratory failure. Secondary PAP due to heavy inhalation exposure to inorganic dusts causes a reduction in the number and clearance capacity of alveolar macrophages. **Objective:** We present you the case of a 42-year-old Sudanese patient with a 17 pack-years smoking history who shows up at the hospital in December 2019 for dry cough, weight loss and exertional dyspnea. The onset of the symptoms started 2 months earlier, after using sandpaper on the walls while refurbishing his house. **Material and methods:** The initial diagnosis based on the clinical context and chest X-ray was pulmonary tuberculosis. However, the Acid-Fast Bacillus (AFB) smear was negative and the High-resolution CT showed a "crazy-paving" pattern. The blood count showed no evidence of hematologic malignancy or myelodysplastic syndrome. A flexible bronchoscopy to obtain bronchoalveolar lavage (BAL) fluid was performed. The examination of the BAL fluid showed the presence of PAS-positive material and the growth of E.coli colonies with no atypical cells found. Pulmonary function tests demonstrated a moderate reduction in the diffusing capacity for carbon monoxide (DLCO). **Results:** Using all of the findings, the diagnosis of secondary pulmonary alveolar proteinosis was established. The patient received antibiotic treatment with ceftriaxone and ciprofloxacin. Whole lung lavage under general anesthesia was performed, which proved to be effective. The patient was advised to stop smoking and a regular check twice a year was recommended. **Conclusions:** Secondary PAP represents less than 10% of the total cases of pulmonary proteinosis. Further tests should be performed to identify the exact etiology in this situation. The particularity of the case comes from the limited exposure to the toxic, as well as the patient's ethnicity.

Keywords: pulmonary alveolar proteinosis, diffuse lung disease, PAS positive, toxic exposure

EVERYTHING RUNS WITH COCA COLA

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Background: A bezoar represents a mass formed by the accumulation of exogenous material, partially digested or undigested, located in the gastrointestinal tract. The bezoar might cause, in rare cases, intestinal occlusion. The prevalence of phytobezoars should be taken into consideration at the occurrence of colicative abdominal pain which does not respond to the treatment with major painkillers. The positive diagnosis is established by performing a

superior digestive endoscopy. **Objective:** - **Material and methods:** A 73 year-old male presented pain in the epigastrium and left hypochondrium, nausea, sitophobia and early satiety. The patient has been previously diagnosed with hypertension, type 2 diabetes, chronic alcoholism and tabagism. The medical history of the patient contains an open cholecystectomy and epigastric eventration. The present symptoms debuted 5 weeks prior. The patient underwent treatment with PPIs during the second day of the hospitalization with minimal response. An endoscopy was performed. The endoscopic exam revealed a giant gastric Phytobezoar. Because the patient refused endoscopic removal of the mass, an alternative treatment was initiated. The patient was given Coca Cola Zero, 2L/12h. After 12 hours of treatment the patients condition improved, full remission being achieved after 5 days of treatment. **Results:** The predisposing factors of phytobezoars include incomplete mastication, gastric surgery, diabetes and chronic alcoholism. The treatment is endoscopic, consisting of fragmentation and extraction of the mass, and gastric lavage. Soda-like beverages represent an efficient and risk free alternative to endoscopic treatment. Phytobezoars seem to have the best response in the soda- treatment. In our case, Coca-Cola Zero® was used. Even though the patient did not consume soda-like beverages, he was open to the proposed Coca-Cola treatment. The patient's receptivity to a risk-free treatment should be taken into consideration when establishing the treatment methods regarding gastric phytobezoar cases. **Conclusions:** Cola Zero can be used to treat bezoars in people with diabetes

Keywords: Phytobezoar, Coca Cola Zero, Diabetes, Non-compliance

RELATIONSHIP BETWEEN VULNERABILITY DEGREE OF CORONARY LESIONS ACCORDING TO PLAQUE LOCATION, A CCTA STUDY

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Background: Objective: The object of this study was to identify correlations between PAT and CP vulnerability according to plaque location within the coronary tree (left anterior descending □ LAD, circumflex □ CXA, and right coronary artery □ RCA). **Material and methods:** This was a study on 80 patients with chronic coronary syndromes, who underwent 128-slice CCTA for detecting the presence and severity of coronary atherosclerosis. CP analysis and quantification of EAT and PAT was performed with the Syngo.via Frontier postprocessing software. We performed a per-plaque analysis on 90 vulnerable lesions (with ≥ CT vulnerability markers per plaque), located in the three major coronary branches (LAD=90; CXA=90; RCA=90). The statistical analysis was performed with GraphPad Prism 7 software, threshold for the statistical significance was set at an alpha of 0.05. **Results:** Plaques located in the RCA presented were longer (LAD - 18.67± 5.49 vs. CXA - 15.48 ±3.73 vs. RCA - 20.47±5.97 mm, p=0.001), with a higher degree of stenosis (LAD - 57.77±8.62 vs. CXA - 54.50±11.25 vs. RCA - 59.63±10.42 mm, p=0.022), and were more voluminous (LAD - 187.9±86.03 vs. CXA - 146.9±102.4 vs. RCA - 248.1±11.4 mm³, p=0.0007) compared to those located in the LAD and CXA. Plaques located in the LAD were more calcified (p=0.002), while those in the RCA presented higher lipid rich and non-calcified volumes (p=0.0005 and p=0.002). The highest number of VM per plaque was detected in the LAD (p=0.01). EAT was not different between the three coronary arteries (p=0.603), but PAT was larger in the RCA (LAD □ 56.8±28.4 vs. CXA - 40.8±23.7 vs. RCA - 92.7±48.3 mm³, p=0.0002). **Conclusions:** The periplaque adipose tissue is more expressed in the vicinity of CP located in the right coronary circulation, which have a higher lipid content and are more voluminous, compared to those from the left coronary circulation.

Keywords: chronic coronary syndromes, CT coronary angiography, periplaque adipose tissue, vulnerability

THE IMPACT OF EPICARDIAL ADIPOSE TISSUE ON RECURRENCE OF ATRIAL FIBRILLATION FOLLOWING PULMONARY VEIN ISOLATION

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Background: Pulmonary vein isolation-PVI by catheter ablation is one of the main therapeutic strategies for rhythm control in patients with atrial fibrillation-AF. Epicardial adipose tissue-EAT has been correlated with an enhanced inflammation in several cardiovascular disorders. **Objective:** We sought to evaluate the relationship between an increased left atrial volume in relation to the EAT volume, on the recurrence rate of AF at 6 months after PVI via catheter ablation. **Material and methods:** The study included 44 patients (23 with paroxysmal and

21 with persistent AF), who underwent PVI with either radiofrequency or via cryoablation. EAT was quantified with the use of cardiac computed tomography-CCT, by using the Syngo.via Forntier software for image post-processing. The threshold for statistical significance was set at an alpha of 0.05. **Results:** In patients who developed AF recurrence at 6 months after AF ablation, the volume of EAT and of left atrium were significantly larger than in the group who maintained sinus rhythm (205.3±22.38 ml vs. 136±42.11 ml, p=0.01 for EAT, and 147.2±3.89 ml vs. 88.93±4.21 ml, p <0.0001 for left atrial volume, respectively). The left ventricular ejection fraction was significantly lower in patients with AF recurrence (51.22±5.44% vs. 55.31±4.91%, p=0.04). There was no significant difference in recurrence rates between ablation modality (radiofrequency □ 28.3% vs. cryoablation □ 22.2%, p=0.64). At the same time, recurrence rates after AF ablation were not influenced by the main cardiovascular risk factors (age, hypertension, dyslipidemia and smoking) and was not associated with different risk scores (CHA2DS2-VASc and HAS-BLED). **Conclusions:** Patients with AF recurrence after pulmonary vein isolation present significantly higher EAT or left atrial volumes compared to patients who maintained sinus rhythm. This indicates the inflammatory mediated response, usually accompanied by an increased amount of EAT, could be associated with the risk of AF recurrence following catheter ablation of the pulmonary veins.

Keywords: epicardial adipose tissue, cardiac computed tomography, epicardial adipose tissue, pulmonary vein isolation

IMPACT OF OBESITY ON STROKE RISK IN PATIENTS WITH ATRIAL FIBRILLATION AND SYSTEMIC HYPERTENSION

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Background: It is well-known that obesity is a risk factor for atrial fibrillation (AF) but also for systemic hypertension. Not a few times, both AF and hypertension coexist. The risk of stroke is increased in AF patients but its coexistence with hypertension and obesity as added risk factors deserve further research. **Objective:** The aim of this study was to assess the influence of obesity to the risk of stroke in patients with nonvalvular AF and high blood pressure. **Material and methods:** We performed a retrospective study involving 258 patients with nonvalvular AF, 51.6% females and 48.4% males. 38% of these patients were diagnosed with paroxysmal AF, 3.9% with persistent AF and 58.1% with permanent AF. In this group, 210 (81.4%) were diagnosed with hypertension. The risk of stroke was estimated using the CHA2DS2-VASc score. To categorize the weight status, we classified it according to BMI values into two groups: group A with BMI <30 kg/m² and group B with BMI ≥30 kg/m². **Results:** The data analysis, revealed that group A includes 108 hypertensive AF patients, while the group B includes 92 hypertensive AF patients. In terms of stroke risk, it was achieved a median CHA2DS2-VASc value of 4 in the group B, by comparison with a value of 5 in the group A. Thus, we can claim that doesn't exist a significant correlation between obesity and the risk for developing stroke events (P<0.08). **Conclusions:** In our study, due to the close value to statistical significance, we consider that in terms of obesity-stroke risk association in hypertensive AF patients, further research projects are required in larger groups. Thus, even if obesity is an independent risk factor for AF and hypertension, is not an appropriate indicator to assess the risk of stroke.

Keywords: atrial fibrillation, hypertension, body mass index, stroke

SOCIAL NETWORKS – A SOURCE OF INFORMATION FOR RAISING A CHILD

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Background: In recent years, the Internet has become one of the most popular sources of health information for users, and mothers are no exception. Pre-natal and post-natal periods are times when many women actively seek health information from multiple sources, including the Internet. **Objective:** The purpose of this study is to help establish the sources from where mothers currently receive information; whether they are credible sources or social media sites. **Material and methods:** We conducted an anonymous cross-sectional web-based survey among Internet Romanian mothers from 01.09.2019 until 01.02.2020. We worked with a questionnaire with 30 questions regarding mothers' attitudes towards vaccination, breastfeeding, children's pathologies, medication and the influence of Internet browsing on children's growth. Criteria for inclusion in the lot: mothers who have access to

the Internet. Exclusion criteria: absence of consent. Following data collection, descriptive statistical methods were applied. **Results:** A total of 811 mothers were included in the study. Most of the mothers are between 31-40 years and have 2 or 3 children (41,7%). 36.6% of them declare that they check the groups dedicated to mothers on Facebook daily and 51,7% believe that the advice received from other mothers in social media about raising children has been helpful, some of them giving their children medication that was recommended in these groups. Doctors are in 4th place regarding the information sources of the mothers, after Google, other mothers and books. **Conclusions:** Mothers are heavily engaged on social media, receiving a high level of support from other mothers and the groups dedicated to mothers are rapidly becoming an important and trusted source of parenting and health information that mothers turn to when making infant care decisions.

Keywords: Internet, mothers, questionnaire, social networks

PELVIC CONGESTION SYNDROME: INTERVENTIONAL TREATMENT CHALLENGES

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Background: Pelvic congestion syndrome (PCS) is a frequent cause of chronic pelvic pain, mainly in women. Its multifactorial etiology includes ovarian and internal iliac vein insufficiency, venous obstructions, multiparity and hormonal changes. Venography is considered the golden standard procedure for diagnosis and interventional treatment options are represented by ovarian and pelvic vein embolization or sclerotherapy. **Objective:** Highlight the possible complications of embolization with coils and sclerotic agents and focus on improvements that can maximize the procedure's rate of success. **Material and methods:** The authors performed a MEDLINE search using the following terms: "pelvic congestion syndrome embolization". Inclusion criteria consisted of articles in English that emphasized the problems faced by interventional radiologists while treating PCS. Four articles were selected for this review and their main findings are summarized in the "results" section. **Results:** Embolization is performed usually using coils and sclerotic agents. Complications of coils include: Migration- reduced from 4.2% to 1.6% in the past decade due to technique improvements; most frequently to the pulmonary artery, but also possible in the renal vein and in rare cases protrusion in the femoral vein. Vein perforation during the insertion of coils which can lead to extravasation of contrast agent. Attention should be paid to: Appreciating the right size of the coil as veins with diameter >12mm have a higher risk of coil migration. Coils should not be placed too close to the renal vein. Sclerotherapy eliminates the complications of coils, but there is a higher incidence of transient pain during the recovery (up to 14.8%). Good control of foaming agents is vital as emboli could be formed and lead to stroke. **Conclusions:** Endovascular treatment is viewed as a simple technique, but certain aspects are to be kept in mind as severe complications are in direct relationship with the manipulation of the materials.

Keywords: pelvic congestion syndrome, embolization, treatment complications

DILATED CARDIOMYOPATHY AND HYPOKALEMIA- A POTENTIALLY LETHAL COMBINATION

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Background: Dilated cardiomyopathy (DCM) is a disease primarily involving the myocardium, being characterized by a combination of left ventricular or biventricular dilation and systolic impaired function that is not explained by CAD or abnormal loading conditions. In most of DCM individuals, the disease progresses from an asymptomatic phase to an evolving syndrome of heart failure, dominated by symptoms of left-sided decompensation. From one to another side of the spectrum, DCM could present arrhythmogenic features, but syncope or sudden cardiac arrest rarely are the initial manifestations of the disease. **Objective:** We report the case of an apparently healthy 30-year-old female who suffers a resuscitated cardiac arrest at work, caused by ventricular fibrillation. **Material and methods:** The patient is firstly admitted to Intensive Care Unit in a critical state, being sedated, intubated and mechanically ventilated. Cardiologic evaluation by transthoracic echocardiography reveals dilated left cavities, moderately altered systolic function of left ventricle and emergency coronary angiogram shows no significant stenoses; the patient is then diagnosed with DCM. Laboratory tests reveal a severe hypokalemia (2,8

mEq/l), leukocytosis with neutrophilia and raised C reactive protein (96.57 mg/l). The patient is febrile (39.1°C) and had multiple diarrheic stools in the last three days according to the family. Therefore, in addition to the specific intensive care treatment, the patient is administered Potassium Chloride 15% and antibiotic treatment for acute enterocolitis (Ciprofloxacin 400 mg i.v.). The patient's condition improves under treatment and there are performed further investigations: cardiac IRM which confirms DCM, electrophysiological study which reveals non-sustained ventricular tachycardia and atrio-ventricular conduction disturbances. **Results:** The patient undergoes insertion of an implantable cardioverter-defibrillator to correct further dangerous ventricular arrhythmias. **Conclusions:** The particularity of our case is represented by the steep clinical evolution of DCM: a previously asymptomatic young patient who presents with ventricular fibrillation, on a background of diarrhea-induced hypokalemia and work-related physical exhaustion.

Keywords: Dilated cardiomyopathy, ventricular fibrillation, hypokalemia

CLINICAL AND RADIOLOGICAL ASPECTS OF LIVER METASTATIC DISEASE

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Background: Metastatic disease affects more frequently the liver than other organs and it is the main recommendation for hepatic imaging, being associated with increased mortality and morbidity in oncologic patients. Even though abdominal computed tomography(CT) is the suitable investigation for liver metastases assessment in most cases, uncertain results still exist. **Objective:** The aim of this study was to identify CT metastatic liver disease aspects related to high diagnostic certainty, in order to make the proper decision in management of oncologic patients. **Material and methods:** This retrospective study included 400 patients who underwent abdominal CT for clinical suspicion of liver metastases in SCJU Târgu Mureş, Medical Imaging Laboratory, between January 2017-December 2019. Based on the CT result we divided the patients into 2 groups: group A consists of 337(84.25%) patients with liver metastases and group B 63(15.75%) with uncertain diagnosis. Clinical diagnosis, age, gender, radiological aspects: density, vascularization, focal or multiple (≥ 2 lesions) and dimensions(mm) were evaluated. **Results:** Mean age was 64.90 ± 11.24 (SD) yo with female predominance $n=210$ (52.5%). Age ($p=0.7618$) and gender ($p=0.8908$) did not influence CT results in the studied population. In group A, compared to group B, multiple lesions ($n=258$, 76.55%, $p=0.001$) and hypodense lesions ($n=285$, 84.57%, $p<0.0001$) were both significantly associated with certain CT diagnosis. In both groups lesions were predominantly hypovascular($n=330$ group A vs. $n=61$ group B, $p=0.637$). In group A primary gastrointestinal tumors tract ($n=180$, 52.5%, $p=0.0199$) and multiple-organ metastases ($n=47$, $p=0.0086$) were both significantly associated with multiple liver lesions. In group A higher dimensions metastases (>30 mm, $n=203$) were associated with multiple lesions ($p=0.0199$) and were diffusely located, while focal lesions commonly located in segment 4, were smaller(15-30mm). **Conclusions:** In the studied population hypodensity and multiple lesions were associated with high CT diagnostic certainty when metastatic liver disease was suspected. No influence was observed regarding age, gender and lesion vascularization.

Keywords: computed tomography, liver metastases, uncertain diagnosis

A RARE CASE OF ACUTE HEPATITIS INDUCED BY THYROZOL

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Background: Thyrozol, known as Thiamazol, is a largely used drug to treat hyperthyroidism. Although it is generally well-tolerated, some of its rare side effects can be life-threatening including liver failure, agranulocytosis and myolysis. **Objective:** Our objective is to present a rare case of acute hepatitis induced by Thyrozol and the importance of regular medical check-ups among patients known with hyperthyroidism. **Material and methods:** A 61-year-old male presented into the Emergency Unit with atypical anterior thoracic pain and conjunctival icterus. The patient was known to have had superior sinus venosus atrial septal defect (ASD) and anomalous pulmonary venous drainage into the right atrium (RA) surgically treated in 1999. Also, the patient's history revealed atrial flutter with irregular conduction which was chemically converted to normal sinus rhythm followed by amiodarone-induced hyperthyroidism eventually treated with 20 mg of Thyrozol for 3 weeks. **Results:** Blood tests showed important hepatocytolysis, cholestasis and a rise in the muscle enzymes plus slight leukopenia and

thrombocytopenia. Several other tests were requested such as viral markers (surface antigens of hepatitis B and C) and immune markers (ANA, p-ANCA, antiLKM, antiSm) which came back negative. Results illustrated acute hepatitis associated with myolysis and bicytopenia due to Thyrozol usage. This medication was suddenly replaced with low dosages of Prednisone and additional hepatoprotective supplements. **Conclusions:** This case suggests that, due to the severe liver toxicity, Thyrosol can cause acute hepatitis, myolysis and agranulocytosis. It is therefore important for all physicians treating hyperthyroidism to closely monitor the liver function of their patients.

Keywords: acute hepatitis, thyrozol, thiamazol

EVALUATION OF THE MOST COMMON ERRORS REGARDING THE INTRODUCTION OF SOLID FOODS IN INFANT NUTRITION

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Background: The first 1000 days of life are the most important period for the growth and development of the human body. This period begins at conception and lasts until the end of the second year of life. In this stage of life the child's growth is faster than in any other period of life and nutrition is the basis of the growth and development of each newborn and toddler. The nutritional status during a life cycle stage influences the health status of the later stages. The introduction of solid foods is a controversial topic worldwide and over time there have been different opinions about it, sometimes leading to errors that were harmful for the children's health. **Objective:** The aim of the study was to analyze the most common nutritional errors that parents make in the period of introduction of solid foods in their child's diet. **Material and methods:** The parent's education about child nutrition was tested by filling an anonymous survey at national level. The test included 57 questions about parents, feeding methods, first types of solid foods introduced in the child's diet and about the parents information resources regarding nutrition. **Results:** From the total of 434 participants in the study 79% are urban citizens mostly aged between 30-40 years with high level of education. The study demonstrated that 40% of participants started the introduction of solid foods before the age of 6 months, 26% declared that potential allergenic fruits like strawberries can be introduced between the age of 6-9 months and 10% of mothers gathered information about infant nutrition from the social media. **Conclusions:** At the current moment thanks to the increased rate of information fluidity on different channels, obtaining the correct information about infant nutrition became a difficult topic for the parents which often leads to misinformation and nutritional problems.

Keywords: infant feeding, nutrition, introduction of solid foods, nutritional error

THE IMPACT OF SMOKING ON CHRONIC DERMATOLOGICAL DISEASES

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Background: Prolonged smoking has been associated with increased systemic morbidity. Cigarette smoking is considered to be an etiological and aggravating factor in the development of various skin diseases, but this theory is currently considered controversial. **Objective:** This study aims to explore patients' perception of smoking impact on clinical manifestations of the chronic dermatological diseases. Furthermore, it aims to measure the impact of skin disease on the quality of life of the patients suffering from dermatological diseases and treated at the dermatology clinic of the Tîrgu-Mureş clinical county hospital. **Material and methods:** A sample of 50 patients was included in this study. As a method of investigation, we used DLQI (dermatology life quality index) and a two-parts questionnaire which helped us to find out the smoking status of the patients and the impact of smoking on the dermatological disease. **Results:** Concerning the link between smoking and dermatological disease: 44%(number=22) of the patients never smoked, 26%(number=13) gave up smoking, 30%(number=15) are still smoking. The patients were also questioned about their smoking habit and whether these habits had an impact on their clinical status. The results of this study shows us that 36%(number=18) deny a link between smoking and their clinical condition, only 12%(number=6) noticed a tendency of aggravation of the symptoms, and 54%(number=27) declare that smoking do not improve their symptoms. Regarding the DLQI score, for 6%(number=3) of the patients, the disease had "no effect" on their life, 34%(number=17) rated "small effect", 32%(number=16) reported "moderate effect", 26%(number=13) reported a "very large effect" and

2%(number=1) considered the disease to have" an extremely large effect". **Conclusions:** The literature emphasizes the negative effects of smoking on almost all the body systems. Larger samples of patients are required. Further research is needed to be done in order to prove the real impact of smoking on patients' health.

Keywords: chronic dermatological disease;, impact of smoking ;, quality of life

OBESITY AT PATIENTS WITH CHRONIC HEART FAILURE AND ASSOCIATED COMORBIDITIES

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Background: Obesity is a risk factor for most cardiovascular diseases. Recent studies have revealed an association between obesity and the prognosis of patients diagnosed with chronic heart failure, reaching the concept of the "obesity paradox". **Objective:** The aim of the study is to analyze the mortality rate of patients with chronic heart failure and associated comorbidities according to body mass index. **Material and methods:** Our observational study retrospectively analysed 510 patients diagnosed with chronic heart failure and other comorbidities, aged between 30 and 95 years, hospitalized in the Internal Medicine Clinic III between 2015-2019. Patients were grouped by demographic characteristics and according to the BMI anthropometric tool (BMI<30kg/m²; BMI≥30kg/m²). Patients with heart failure, with preserved ejection fraction and neoplastic pathology were excluded from the study. **Results:** From 510 patients, 18 died (3,5%), the mortality rate by sex being higher in the female subplot 5.8% (13 cases) vs. 1.7% (5 cases). BMI was calculated for the 510 patients and they were divided into 2 groups. Group 1-patients with a BMI <30 kg/m² - 302 cases (59.2%). Group 2-patients with BMI ≥30 kg/m² - 208 cases (40.8%). The evolution of patients in group 2 was more favorable, with the mortality rate registering 1% vs. 5.3% for group 1. The age categories (30-50 years and 50-70 years) had a BMI corresponding to grade I obesity (26.1%, 22.3%) and the majority of patients between 70 and 90 years were overweight (105 cases, 32.9%). Assessing the associated comorbidities, we found a statistically significant association between obesity (BMI≥30 kg/m²) and the decompensation of patients with heart failure with BMI≥25 kg/m² (39.80% vs. 67.45%, p=0.010). **Conclusions:** Although the "obesity paradox" theory has been confirmed in this study, obesity is definitely a major risk factor in the evolution of heart failure independent of age or other associated comorbidities.

Keywords: heart failure, obesity, comorbidity

THE USE OF MAGNETIC RESONANCE IMAGING IN THE EVALUATION OF POST-TRAUMATIC KNEE IN ATHLETES

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Background: Knee trauma is common among athletes. In many cases these types of injuries are due to acute trauma or overuse from repeated and prolonged activities. Many of these acute traumatic knee injuries that occur during sports are fractures, ligament and meniscal tears, articular cartilage injuries. MRI is used for an early diagnosis and allows resumption of physical activity. **Objective:** The aim of the study is to highlight the role of MRI used in knee imaging in athletes, associating injuries with biomechanics and the mechanism by which they were caused. **Material and methods:** We conducted a retrospective observational study that involved a number of 40 athletes who suffered knee injuries when practicing sports, evaluated by MRI, using 1.5 Tesla device with standard protocol consisting of T1, T2, STIR and PD sequences. Knee injuries will be characterized using each sequence assessing the aspect of all anatomical structures. **Results:** In the study group, mean age was 25, with the majority of the patients being males(67,5%). There were no significant differences regarding the side of the injury. Most common structure affected were the ligaments (72,5%) followed by the meniscus (45%), with the majority of patients associating intraarticular fluid collection (77,5%). Regarding ligaments most of the lesions representing tears (75,8%), ACL being the most affected structure. While PCL injury was significantly associated with football practicing. Meniscal injury was located mainly in the posterior horn(61%). **Conclusions:** MRI is an excellent tool used in knee evaluation due to its ability of characterizing soft tissues. As seen in our study the structure most prone to injury in athletes is the ACL, while PCL lesions were significantly associated with football practicing. Due to its superior ability of providing noninvasive information MRI represents a key step in trauma evaluation of

athletes with impact in a quick diagnosis, guiding the treatment for a proper rehabilitation.

Keywords: MRI, knee injury, athletes

COARCTATION OF AORTA - CHALLENGING TREATMENT IN NEWBORNS LIFE

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Background: Coarctation of the aorta (CoA), one of the most common cardiac abnormalities, represents the spectrum comprising aortic narrowing that can range from a discrete entity to tubular hypoplasia. Consequently causes obstruction of blood flow that includes it in critical heart disease. **Objective:** The importance of intrauterine fetal imaging evaluation, but especially of newborns represents a key step for diagnosis, evaluation and timely treatment of CoA. The study also compares the elaborated treatment methods and presents the frequently associated pathologies. **Material and methods:** Twenty-eight newborns evaluated in the period 2016-2018 were diagnosed with CoA. They underwent cardiac ultrasound and followed the treatment according to the severity of the pathology. **Results:** Echocardiographic exploration on a group of 28 patients reveal that 78.5% have a ductal dependence coarctation. They were following a preoperative treatment with prostaglandin and in a short period of time have been scheduled for surgery where the arterial canal was sectioned. Aortic stenosis surgical treatment was applied for a percentage of 85.71% of the patients. A percentage of 57.14% underwent for terminal term anastomosis type and the other for aortoplasty - 28.57%. The most common pathologies associated with CoA were atrial septal defect (89.28%) and bicuspid aortic valve (82.14%). More than a quarter of newborns (28.57%) developed cardiac (arrhythmia, cardiomegaly), infectious and metabolic complications. **Conclusions:** Coarctation of the aorta is one of the most challenging cardiac pathologies in neonatal life. Due to the severity of its complications, but also of the associated pathologies, it requires prompt treatment. Angioplasty and terminal anastomosis are the most effective therapeutic methods, with a positive evolution in a short time.

Keywords: coarctation of aorta, newborns, echocardiography, aortoplasty

ALCOHOL CONSUMPTION AS A RISK FACTOR OF UPPER GASTROINTESTINAL BLEEDING

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Background: Acute upper gastrointestinal bleeding (UGIB) is defined as bleeding proximal to the ligament of Treitz and remains one of the most commonly encountered emergencies managed by gastroenterologists, with mortality rate from 4 to 15%. Alcohol consumption can cause inflammatory mucosal injury, with edema, cellular exfoliation and submucosal bleeding with the presence of inflammatory mediators, local vasoconstriction with necrosis and ischemic effects. **Objective:** Highlighting the toxic effect of alcohol consumption on the gastric mucosa. **Material and methods:** From January 2016 to May 2019, we performed a retrospective study that included clinical data of 660 patients with UGIB, submitted to early diagnosis by endoscopy. **Results:** 217 patients with alcohol-related bleeding (178 males and 39 females) and 443 non-alcohol-related bleeding (261 males and 183 females) with ages between 20-109 years, were assessed. The ratios of males and females were 4.5:1 in the first group and 1.5:1 in the second group, with statistically significant differences between gender ($p < 0.0001$, RR: 0.45) and age 59.54 ± 11.74 vs. 74.53 , $p = 0.0005$. In the alcohol consumption group, 87% had liver cirrhosis and 53% had cardiac diseases (vs. 85%, $p = 0.01$), with an increased INR measure ($p = 0.002$). In the study group 14% presented recurrent bleeding vs. 7% ($p = 0.001$). The severity scores - Glasgow-Blatchford and Rockall score - are higher in patients with alcohol consumption ($p = 0.02$), as well as Forrest score ($p = 0.003$), results that increase the necessity of endoscopic hemostatic treatment ($p = 0.000$). The majority of cases are representing by bleeding from esophageal varices ($p = 0.02$), portal gastropathy and gastric ulcer (26% of the study group) $p = 0.001$. The PPI consumption is double in the study group compared with the control group ($p = 0.026$). **Conclusions:** The present study shows that younger male patients with alcohol consumption have a higher risk of UGIB with severe lesions and a higher mortality rate. There are significant hematological changes with highly increased severity scores.

Keywords: Upper gastrointestinal bleeding, Alcohol consumption, Risk factor

PREHOSPITAL SETTING ANESTHESIA IN POLYTRAUMA PATIENTS – PARTIAL RESULTS

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Background: Polytrauma is one of the leading causes of death in young patients, leading to increased morbidity and mortality rates in the absence of early medical intervention initiated from the pre-hospital phase. Regardless of the traumatic mechanism, the most common and rapidly fatal situation is airway obstruction, which requires early advanced airway management and mechanical ventilation. **Objective:** The main objective of this study is to show the benefits of an early and correct airway management in polytraumatized patients. **Material and methods:** Clinical data were collected from the medical records of 138 patients who were brought by the SMURD helicopter or Mobile Intensive Care Ambulance to the Emergency Department of the Târgu-Mureș Emergency County Hospital between the 1st of January to 31st of December 2019. **Results:** The mean age of the 138 patients was 44.7 years, 76 patients (55%) were aged between 1 and 49 years old. A total of 74(53.6%) patients needed advanced airway management, 54 patients (73%) presented a GCS ≤ 8 points, while 20 patients (27%) presented GCS ≥ 8 points. Out of the 74 patients, 58(78.4%) needed anesthetic induction and 16(21.6%) were intubated being in cardiac arrest. Regarding the cardiac arrest patients, of the total of 74 patients, 22 patients (29.7%) presented cardiac arrest on scene out of which 6(27.3%) responded to CPR maneuvers while 16(72.7%) were declared deceased on scene. From the total of 138 patients, 32 (23.2%) died on scene or after maximum 19 days of hospitalization, 85(61.6%) patients were discharged after a mean period of hospitalization of 13.8 days, 21 patients (15.2%) were transferred to other clinics or refused hospitalization. **Conclusions:** Out of the 58 patients who needed anesthetic induction, 42 (72.4%) patients were discharged while 16 (27.6%) patients deceased, which proves that an early advanced airway management in prehospital setting leads to higher survival rates among polytraumatized patients.

Keywords: Polytrauma, Anesthesia, Prehospital

THE QUALITY OF INFORMATION ABOUT AUTISM ON THE ROMANIAN AND ENGLISH WEB

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Background: Although the dissemination of misinformation about the autism-vaccines link through the internet is considered one of the factors contributing to the downward trend in vaccine coverage in Romania, the quality of online information about autism has not been systematically investigated. **Objective:** The study aimed to assess the quality of online information about autism presented to the general population in Romanian compared to the information available in English. **Material and methods:** A literature-based content quality benchmark including symptoms and treatment sections was developed and revised by two psychiatrists. Fifty websites, half Romanian and half English, were selected from the search engine results page and rated for completeness and accuracy by two independent evaluators using a common set of instructions. Inter-rater reliability was checked using Cohen's kappa-test. Quality scores were reported on a 0 to 10-point scale. The presence of misinformation about the vaccine-autism link was reported in percentages. Student-t and Mann-Whitney tests were applied for numerical variables and the Chi-square test was used for categorical variables. The threshold for statistical significance was set at 0.05. **Results:** The mean completeness and accuracy scores were 5.9 and 6.5 respectively. Both scores were significantly higher in the English subsample compared to the Romanian subsample (completeness: 6.8 vs 5.1, $p=0.0197$; accuracy: 6.9 vs 6.1, $p=0.0215$). Information regarding symptoms was more complete than regarding treatment (6.9 vs 3.9, $p<0.0001$). Overall, 38% of the websites stated explicitly that autism is not caused by vaccines. The number of websites giving accurate information about the autism-vaccine link was twice as big in the English subsample but the difference was not statistically significant. **Conclusions:** The level of completeness and accuracy of Romanian and English language websites about autism was moderate and only a minority of online sources dispelled the myth regarding vaccines causing autism.

Keywords: consumer-health informatics, autism, vaccine, accuracy

PEDIATRIC BACTERIAL INFECTIONS: COULD AETIOLOGICAL AGENTS BE PREDICTED BY COMMON LABORATORY FINDINGS?

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Background: In defiance of current scientific advances, the difficulties in readily objectifying bacterial species prove to be a continuous struggle and contribute to the upheld morbidity and mortality amongst children suffering from bacterial infection. Therefore, the necessity for rapid, dependable and inexpensive means of guidance, to serve the clinician's aetiological presumption (leading to proper selection of the empirical antibiotherapy), seems to be perpetually emerging in this era of drug-resistant microbes. **Objective:** To assess if statistically significant differences exist between certain bacterial species-accountable for disease on the basis of variation in ordinary blood laboratory parameters (of culture-positive patients). **Material and methods:** Our retrospective study was conducted at the Pediatrics I Clinic of the County Emergency Clinical Hospital of Tîrgu Mureş, encompassing clinical and laboratory evidence from a culture-positive-inpatient lot, composed of 37 individuals admitted between September 2018 and October 2019. The data were entered into a spreadsheet program and then statistically analysed. **Results:** Male to female distribution was 22 to 15; by age category, the group had 7 newborns, 11 infants, 11 toddlers, 1 preschooler, 6 schoolers and 1 adolescent. Blood stream was the most prevalent bacterial localization (in 20 of cases), followed by the lower respiratory tract (with 11 cases) and urinary tract lining (within 8 cases). Unrelated to localization, the statistical analysis yielded significant differences between *Staphylococcus aureus* and *Streptococcus pneumoniae*, in respect to haemoglobin (means were 13.60 ± 2.28 versus 9.66 ± 3.53 , $p=0.011$), MCH (had means of 28.85 ± 2.52 versus 23.12 ± 5.77 , $p=0.012$) and haematocrit (with means of 39.69 ± 6.72 versus 30.17 ± 8.69 , $p=0.018$) values, suggested as well by findings in MCV ($p=0.073$) and MCHC ($p=0.064$), in spite of not holding statistical significance. Additionally, the global germ analysis showed statistical significance, related to the aforementioned parameters: haemoglobin ($p=0.013$), MCH ($p=0.025$), and haematocrit ($p=0.022$). **Conclusions:** Significant distinctions in conventional blood parameters-by bacterial species have been suggested. Hence the contemporary methods pose certain vulnerabilities, the utility of such findings and how they correlate is yet to be determined.

Keywords: bacterial infection, etiologic agents, empirical antibiotic, laboratory

FEBRILE SEIZURES: RISK FACTORS AND CLINICAL LABORATORY FINDINGS

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Background: Febrile seizures (FS) are the most common form of paediatric seizure, usually occurring in close association with fever, in the absence of infections, structural or functional abnormalities of the central nervous system. **Objective:** The aim was to analyse a share of risk factors, such as age, family history of FS, 1-minute APGAR score, birth weight and to assess laboratory findings in children with FS. **Material and methods:** This paper presents the analysis of a 58 children group aged 3 months-5 years, hospitalised at Paediatric Clinic I Tîrgu-Mureş, between September 2018-October 2019, with FS. Data were collected in Microsoft Excel and statistically analysed (GRAPH Pad Prisma). **Results:** Of the analyzed, 32 cases were female, 32 from urban areas, classified by age groups as 6 infants, 36 toddlers and 16 preschoolers. The underlying diseases were distributed as follows: acute tonsillitis ($n=26$), acute otitis media ($n=9$), rhinopharyngitis ($n=3$), other superior viral respiratory infections ($n=5$), tracheobronchitis ($n=4$), pneumonia ($n=2$), gastroenterocolitis ($n=2$), stomatitis ($n=2$), while herpangina, mediastinal tumor, sepsis, hand-foot-and-mouth disease occurred once. 50 presented simple FS, while 8 had complex FS. The onset age was 2.27 ± 1.13 years. No significant differences were related to sex and age category ($p=0.32$). A positive family history was found in 5.2% of patients. However, the assessment of birth weight and 1-minute APGAR score as a possible risk factor for FS showed no statistically significant difference between the development of simple and that of complex febrile seizures regarding birth weight ($p=0.09$), respectively APGAR score at 1 minute ($p=0.17$), and neither regarding clinical laboratory data: leukocytes, erythrocytes, haemoglobin, haematocrit, serum iron, reticulocyte count, MCHC, MCV, MCH, platelet count ($p>0.05$). **Conclusions:**

In the analysed group, febrile convulsions were found mainly in toddlers, from the urban area of origin, the most common underlying disease being acute tonsillitis.

Keywords: toddlers, risk factors, febrile seizures

ASSOCIATION BETWEEN CARDIOVASCULAR RISK FACTORS AND INTRACARDIAC CONDUCTION DISORDERS

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Background: Intracardiac conduction disorders such as atrioventricular block (AVB), sinus node disorder (SND) or atrial fibrillation (AF) are the main conditions that require implantation of permanent pacemaker device. However, the influence of cardiovascular risk factors in triggering and increasing the occurrence of intracardiac conduction disorders has not been elucidated so far. **Objective:** We aim to assess the correlation between cardiovascular risk factors and intracardiac conduction disorders in patients requiring permanent cardiac stimulation. **Material and methods:** This retrospective study includes 96 patients, who were admitted in the Cardiology Department of the Clinical County Emergency Hospital, Targu Mures, between January 2018 - February 2019 for intracardiac conduction disorders that required implantation of permanent cardiac stimulator. Demographics data (age, gender, residency), anthropometric indices (BMI), cardiovascular risk factors (hypertension, diabetes, obesity, dyslipidaemia, smoking), laboratory measurements (serum cholesterol, triglycerides, plasma glucose) were evaluated for each patient. **Results:** AVB (75%) male gender (53%) and urban residency (55%) were more frequently observed in patients with intracardiac conduction disturbance. Moreover, the mean age in the study population was 72.77 years with a mean BMI of 26,64 (SD +/- 5.05). Regarding cardiovascular risk factors, hypertension (84%) and chronic artery disease (75%) were more frequent associated with cardiac conduction disorders. Dyslipidaemia (25 %), diabetes (23%), obesity (14%) or current smoker status (23%) were not correlated with the conduction disturbance. Furthermore, only a few cases of syncope (19%), SND (13%), acute myocardial infarction (10%) or AF (29%) required permanent cardiac therapy. **Conclusions:** AVB in older male patients represents the most common indication for permanent cardiac therapy. Dyslipidaemia, diabetes mellitus, smoker status or obesity are not correlated with the conduction disturbance. However, hypertension and atherosclerosis are more frequent founded in patients with intracardiac conduction disturbance.

Keywords: cardiovascular risk factors, atrioventricular block, implantable pacemaker

CLINICAL - SURGICAL

KNEE INJURY

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Background: Annually, more than 10 million visits occur due to knee pain and injuries. Looking at the four components of the knee: bones, cartilage, ligaments and tendons, it is pretty easy to foresee the future injuries. **Objective:** When people are talking about meniscal tears, they usually refer to them as "thorn cartilage". When the tearing appears, a pop can be heard or felt. A few days later, pain, tightness and swelling may increase. A block to knee motion and trouble extending the knee have also been reported. **Material and methods:** This type of injury is the most common of all knee injuries and any activity can cause it, from a twist or rotation of the knee to putting the entire weight on it. Risk factors include performing activities that involve twisting and pivoting of the knee, which is particularly high for athletes, but it can also happen due to aging or obesity. When the tear happens due to aging, it is referred to as "degenerative meniscus tear". **Results:** Complications include unsteadiness, inability to move and persistent pain. Osteoarthritis is the worst complication that can appear in this injury. There are six common types of meniscus tears, which include: incomplete, radial, horizontal, flap, complex and bucket-handle. The location is also very important and so, there are: anterior, posterior and central tears. **Conclusions:** Conservative treatments include: rest, ice, compression, elevation, anti-inflammatories, stretching and strengthening exercises. Sometimes, these are not enough and surgery is required. For 85% to 90% of people who get the surgery for a meniscus tear, the short-term results are very good. But in the long-term, people who have large meniscal injury that is unrepairable may develop osteoarthritis.

Keywords: meniscus, surgery, osteoarthritis

PREDICTIVE FACTORS OF RESPONSE TO NEOADJUVANT CHEMOTHERAPY IN BREAST CANCER

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Background: Complete pathological response (pCR) after neoadjuvant chemotherapy (NAC) for breast cancer has been shown to correlate with positive outcome. Although early chemotherapy-response assessment is essential for a more individualized approach and better therapeutic efficiency, our clinical ability to predict chemotherapy outcome is limited in the present. **Objective:** The aim of this study was to identify predictive factors that could influence decision-making and patient stratification for treatment by correlating tumour and patient characteristics with tumour response to NAC. **Material and methods:** We retrospectively assessed 114 breast cancer patients treated with NAC, who underwent breast surgery between January 2017- January 2020 from which we enrolled in the study 78 patients with complete data. We evaluated response to NAC by calculating residual cancer burden (RCB). We correlated the therapeutic outcome with clinicopathological factors such as: age, histologic grade and type, molecular subtype, microcalcifications, necrosis, inflammation, lymphovascular invasion, ER, PR, HER2 and Ki67. Statistical analysis was performed using Graph Pad Prism 8; Chi2 test was used. We considered statistically significant the value of $p < 0.05$. **Results:** In our case series we found a statistically significant difference between HER2 expression ($p = 0.014$), presence of tumoral necrosis ($p = 0.034$), inflammatory cell infiltration ($p = 0.005$), lymphovascular invasion ($p = 0.001$) and the pathological response to NAC. The other variables did not significantly influence response to neoadjuvant therapy. **Conclusions:** The present study demonstrated that HER2+ patients had a better response to NAC than those with HER2-, whereas the presence of necrosis, inflammatory cell infiltration and lymphovascular invasion was associated with poor response to NAC. Therefore, these four predictors of response to NAC could be integrated in the clinico-pathological profile of the patient to enhance the capacity of predicting response to NAC. As the literature suggests that combining variables increases prognostic power, we intend to further evaluate in our study a multivariable prognostic model.

Keywords: breast cancer, neoadjuvant chemotherapy, predictive factors, pathologic response

SCREENING METHODS IN DEVELOPMENTAL DYSPLASIA OF THE HIP

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Background: Congenital hip dysplasia and hip dislocation are a childhood disorders caused by abnormal development of the hip joint and are the most common congenital malformation of the musculoskeletal system in infant. The incidence in our region is high, this makes screening important. Early suspicion of dysplasia leads to an early diagnosis and early treatment. The results are better always in early treatment. Because in congenital hip dysplasia the joint does not form completely at the birth, the goal of the pediatricians is to obtain and maintain the femoral head in the acetabulum. The treatment of hip dysplasia depends on the degree and time of the disease, but also the age of the child. Depending on these aspects, the doctor will choose the most effective treatment for correcting the position of the hip joint. **Objective:** Is to determine the effectiveness of screening methods for developmental dysplasia of the hip. **Material and methods:** Our study is a retrospective descriptive study, made in the ambulatory of Pediatric Surgery and Orthopaedics Clinic Targu Mures, we have analyzed all the presentations of the patients, with this pathology, of one Orthopaedic Surgeon. All the patients included had a positive screening with Graf method conducted with ultrasonography by radiologist or neonatologist between 1,5 and 4 months. In total 217 patients, including those we had in 2018 and 2019. **Results:** From 217 patients, with positive ultrasonography, we have found 165 positive clinical findings for dysplasia/luxation and 154 were confirmed as dysplasia / luxation. 75 cases needed reevaluation after 6 weeks, 62 orthosis and 17 casting. **Conclusions:** Ultrasonography is the best and the efficient method in DDH screening. Being the only investigation that can visualize hip joint at very young ages, this method can determine the exact degree of the disease, then the pediatricians can prescribe different treatments due to the ultrasound image.

Keywords: infant, hip, dysplasia, ultrasonography

USE OF A VIRTUAL 3D SOFTWARE FOR PLANNING OF TIBIAL PLATEAU FRACTURE RECONSTRUCTION AND PERSONALIZATION OF THE SURGICAL TREATMENT

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Background: Anatomical reconstruction of tibial plateau fractures is necessary to prevent pain, defective axial alignment, instability of the knee joint and post-traumatic arthrosis. Even if the scientific literature presents applications of 3D technology, referring to some software products, no pre-operative planning is described based on a 3D software model free available on internet for personalizing the surgical treatment of tibial plateau fractures. **Objective:** To produce 3D software model for the personalization of the surgical treatment consisting in planning and modelling of tibial plateau fracture reconstruction. **Material and methods:** I have produced a flow chart and identified the computer programs through which 3D images can be processed for orthopedic modeling of tibial plateau fractures. The solution developed concerns (a)-3D imaging and image acquisition and (b) - dimensional design. The results of using the selected software products in the planning and visualization stages are presented in five cases of of tibial plateau fractures that I have collected from the U.P.U.-S.M.U.R.D. Mureş. **Results:** Successful 3D reconstruction and segmentation were obtained in all 5 cases of patients with tibial plateau fractures. The average time required for planning type I fractures was 91 minutes, type IV fracture - 176 minutes, and type 5 fracture - 217 min. The average time required for 3D virtual planning was 161.3 min. **Conclusions:** It can be concluded that more complicated Schatzker fractures type IV, V require a longer time to plan compared to simpler Schatzker fractures type I. The 5 cases of tibial plateau fractures investigated confirm the research hypothesis regarding the improvement of the quality of the tibial plateau reconstruction process by personalizing the surgical treatment using 3D technologies. The results are consistent with other studies in the literature. There are some reservations about the duration of the trial, and following randomized studies, it should be established whether the clinical outcome is worth the time investment.

Keywords: tibial plateau fracture, post-traumatic arthrosis, defective axial alignment

GASTRIC AND ESOPHAGEAL ANASTOMOTIC LEAKS - DATA UPDATES FOR SEMIOLOGY, COMORBIDITIES AND RISK FACTORS – REVIEW

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Background: The reduction of the incidence, detection and treatment of anastomotic leakage (AL) continues to affect the gastric and oesophageal surgical community. AL is not consistently reported in clinical trials, its occurrence being reported variably and its effects on morbidity and mortality have been less studied. We studied the most recent semiological data, methods of prevention and improvements in the management of secondary leakage of esogastric and exojejunal anastomoses after surgery for cancer, in order to analyze and systematize the data from the literature to define as correctly as possible the anastomotic leak and to determine the comorbid influence of the risk factors in establishing the leak in order to optimize the specific and multidisciplinary management of each case. **Objective:** The main intention was to establish a clear diagnosis process, risk factors and post-operative follow up. **Material and methods:** We conducted a retrospective and prospective study regarding gastric and oesophageal anastomotic leaks. We have consulted sources regarding known etiology, treatment and semiology. Family history has also been taken into consideration, establishing whether genetics could have played a role. **Results:** Research data has been compiled resulting in an up to date protocol for the diagnosis and post-operative follow up. An actualized database including semiological aspects, comorbidities and risk factors is established, as well as post-operative guidelines to follow progression and response to treatment for the assessment of patients. **Conclusions:** Anastomotic fistula remains a major complication after esogastric surgery. Despite the efforts to be submitted to reduce the risk of anastomotic fistula, this remains a compulsory complication, which can be severe and difficult to manage. To decrease the operator risk of an anastomotic leak is very important to recognize patients at high risk and thus customizing the specific and multidisciplinary management of each case.

Keywords: Anastomotic Leakage, Clinical Trials, Morbidity, Systematize the data

INTRAHEPATIC SPACE OCCUPYING PROCESSES: IMPORTANCE OF MELD-SCORE AND THE FORMED BLOOD ELEMENTS

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Background: There are many prognostic scores for end-stage liver disease, like MELD-score which is currently the most accepted by the literature for predicting the 3 month survival ratio among the patients who are undergoing liver resection for hepatic tumors. **Objective:** The aim of the study was to analyze the predictable value of MELD score of different hepatic tumors, and its correlation in choosing the surgical technique and also the perioperative risk setting. **Material and methods:** We conducted a retrospective study which included 155 patients treated for hepatic tumors between 01.01.2014-01.01.2019 in the General Surgery Clinic I. of Târgu Mureş Emergency County Hospital. Patient demographics, physical examination data on admittance, tumor (CA19.9, α FP) marker levels, and routine laboratory parameters were followed. Patients were divided in groups by their tumor type: primary, secondary, or benign hepatic tumors. Data was gathered from observation sheets, hospital database, operating protocols, then analyzed with SPSS Statistics. **Results:** From all the cases 56.1% were male, 43.9% female, mean age was 64.92 ± 11.96 . In 126(81.3%) cases elective surgery was made, with a perioperative mortality rate of 6.45%(n=10), mean hospitalization days were 8.3 days. Distribution by tumor type: HCC=54(34.8%), secondary tumors=79(51%), hemangioma=13(8.4%), and hydatid cyst=9(5.8%). From all cases in 49 metastasectomy (31.7%), typical resection 39 (25.1%), atypical resection 29(18.7%) and chemoembolization 38 (24.5%) were performed. There was a significant difference in the hemoleucogram in HCC where HCT and HGB was higher ($HCT=41.36\% \pm 4.37$; $HGB=12.30 \pm 1.66$) than metastatic tumors ($HCT=35.80\% \pm 3.93$; $HGB=10.30 \pm 2.3$, $p < 0.001$). CA19.9 marker was higher in metastatic patients than in HCC (n=28 vs. n=6, $p < 0.001$). Typical liver resection in the primary tumor shows a significant difference in postoperative MELD score compared to metastasectomy (MELD score = 10.94 ± 3.733 vs. 14.42 ± 2.194 , $p < 0.001$). **Conclusions:** The multimodal treatment of liver tumors represents an important element in personalized medicine. The MELD score can predict accurately the outcome of patients after hepatectomies and shows promise as being a useful preoperative predictor of

surgical mortality risk.

Keywords: hepatic resection, hepatocellular carcinoma, MELD score, hepatic tumor

NECROBIOSIS LIPOIDICA DIABETICORUM

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Background: Necrobiosis lipoidica diabetorum (NLD) is a rare and uncommon skin ulceration occurring mostly in diabetic patients. This traumatic pathology is characterized by the intense glycation of collagen fibers belonging to skin structures, blood vessel walls and external sheaths of the nerves. The aspect of such lesions is a deep ulceration with irregular borders developing especially on the lower limb and rarely on the upper limb. **Objective:** This paper intends to present two cases of NLD, focusing mostly on the clinical aspect of this disease and the original treatment applied in the Plastic Surgery Department of the Clinical County Hospital of Targu Mures. **Material and methods:** The authors selected two cases that are more representative of NLD, both occurring in type II diabetes (insulin-requiring) patients. The first case is a 63 year old female with different stages of evolution of NLD developed on the anterior aspect of both legs. This patient has been treated using only conservative procedures such as SSD cream, PVP iodine ointment, modern absorbent dressings (PUR-foam dressings) and multi-layered nitrocellulose pads. The ulceration eventually healed spontaneously. The second case is a type II diabetes patient requiring insulin therapy who developed an extensive full-thickness necrosis of the skin of the right hand and forearm. He has been treated conservatively, but the extensive necrotic lesions also required surgical debridement. Despite this fact, all wounds healed spontaneously. **Results:** In NLD, surgical removal of slough and necrotic tissues is not suitable for the wound healing process. So, we preferred to deal with it conservatively, excepting the full-thickness necrosis located on the distal part of the right upper limb as mentioned above. **Conclusions:** NLD is a dramatic condition occurring in diabetes, requiring a fully documented approach in order to prevent unnecessary loss of healthy tissues. All presented cases healed spontaneously in quite a long period of time.

Keywords: necrobiosis lipoidica diabetorum, type II diabetes, rare necrosis

EXTENSIVE SOFT TISSUE INFECTION IN THE AURICULOMASTOID REGION: AN UNUSUAL LOCATION OF SEPTIC COMPLICATIONS OF TYPE II DIABETES

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Background: Soft tissue infections are frequent complications in patients with type II insulin requiring diabetes. They are usually located on the limbs and trunk and sometimes on the face and neck. Due to the low immunologic response of diabetic patients, these infections require a special care, adequate local and systemic treatment and long term follow-up. **Objective:** This paper intends to present a very severe head and neck infection resulting in an extensive abscess and cellulitis of the auriculomastoid region and the upper insertion of the sternocleidomastoid muscle. **Material and methods:** The patient is a 40 year old female with type II insulin requiring diabetes and type IV diabetic chronic kidney disease requiring dialysis. She has been referred to our clinic with a severe septic lesion located above the mastoid process that showed redness, inflammation and several fistulas from which a thick yellow puss was leaking. Aggressive surgical treatment was not possible due to the bad general condition of the patient. Gauze dressings with SSD have been applied for 4-5 days until all fistulas disappeared, leaving a necrotic superficial fascia. Surgical debridement was performed everyday followed by dressings with SSD and PVP iodine ointment and finally PUR-foam. Bacterial count showed a combination of multi-resistant Staphylococci, Klebsiella and Escherichia. **Results:** After about 2 months of permanent local treatment, the huge defect left by the progressive debridement began to granulate and shrink and the wound started healing spontaneously. **Conclusions:** This is an unusual case (due to the rare and problematic location) requiring permanent follow-up

from the plastic surgery team and the nephrology team. The bacterial burden and the resistance of the germs, besides the kidney failure and dialysis, prevented a long term systemic antibiotic treatment. This is the reason why, the corner stone of this difficult case was the daily follow-up and the combined local treatment.

Keywords: type II diabetes, septic complication, unusual location

RING FINGER REPLANTATION – CHALLENGES, EXPECTATIONS AND REALITY

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Background: Due to the complexity of the lesions produced in ring-finger injury, the microsurgical replantation of the amputated segment represents a real challenge for every hand surgeon. **Objective:** The aim of this paper is to highlight the complex treatment of the specific lesions in ring-finger injury, treatment which may include a wide variety of surgical techniques. **Material and methods:** Our study is based on 5 patients, 3 men and 2 women, aged between 31 and 57 years old, who suffered a ring finger trauma: 2 Urbaniak II and 3 Urbaniak III. The microsurgical replantation was performed in 4 cases with a termino-terminal anastomosis on both digital arteries in 3 cases and on only one in one case. In all cases, we managed to realize only one venorrhaphy. In the 5th case, Urbaniak III avulsion, the woman refused the replantation, choosing amputation. **Results:** The venous insufficiency was present in all 4 cases. In 2 cases, this complication was treated with medicinal leeches and, in the other 2 cases, we chose to use the "biochemical leech": a dermic window with mechanical stimulation and heparinization at preestablished periods of time. The evaluation was realized periodically with very good results at 1 year postoperative. The average range of motion at the metacarpophalangeal joint is 42° and at the interphalangeal joint is 17°. For strength and resistance forces, we obtained values of 72% and 70%. Regarding the sensitivity, the discriminative distance between 2 points is, on average, 8 mm. The SWM Test proved regaining of protective sensitivity, as well as fine touching. Cold intolerance was observed in 2 cases. In the 5th case, the amputation stump healed completely, being suitable for a prosthesis. **Conclusions:** The microsurgical replantation in ring finger injury is still the first line surgical technique, with very good results both from functional and esthetic point of view.

Keywords: ring finger, replantation, amputation

IS FACELIFT SURGERY AGING BADLY?

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Background: Rhytidectomy (derived from the Greek word 'rhytis' meaning 'wrinkle') or facelift surgery is a procedure meant to give a youthful facial appearance by manipulating anatomical structures involved in the ageing process. **Objective:** This present work aims to outline the historical and surgical evolution of the facelift surgery and its current practice. **Material and methods:** Articles published on this topic between 1990 and 2019 were accessed using publicly available online databases. **Results:** The origin of rhytidectomy is conjectural with the publication in 1901 of a now considered 'skin-only' procedure based on making excisions of age-related skin folds. The uncertain genesis of this procedure was mostly caused by animosity against plastic surgery. Conversely, this attitude was changed by the need for treatment of facial injuries in World Wars. This later enabled a progressive exploration of the facial anatomy which led to the discovery of the Superficial Musculoaponeurotic System (SMAS) connecting the facial muscles to the dermis. Its manipulation in the SMAS facelift paved the way for modern rhytidectomy. Thereafter, facelift surgery in 1980s-1990s evolved in invasiveness like the Subperiosteal facelift done by separating and elevating the facial soft tissues from the underlying facial bones. Currently, the trend came back towards a more refined minimally-invasive approach with additional facial volumization techniques. Cancellation of stigma surrounding rhytidectomy has now led to a sharp rise in the demand for this procedure. As a result, more plastic surgeons develop marketing strategies using Google Trends statistics based on the potential patients' online research on cosmetic procedures such as rhytidectomies. **Conclusions:** Despite its tumultuous path, the practice of facelifting is diversified and now tailored to each patient's anatomical presentation with wide popularization derived from the personal and societal need of maintaining a youthful look.

Keywords: facelift, rhytidectomy, ageing, SMAS

TRANSPOSITION OF GREAT ARTERIES: A SINGLE CENTRE STUDY

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Background: The transposition of great arteries (TGA) is the most frequently encountered congenital heart disease, inducing brutal circulatory alterations that impact life quality and expectancy. With a present-day worldwide prevalence of 10/1000 neonates, correct disease management is essential. **Objective:** The purpose of the research is to review and compare results obtained in our centre with published literature in order to evaluate performance, identify potential therapeutic improvements and assess short term prognosis. **Material and methods:** The study is based on the analysis of 71 medical records from pediatric patients who benefited from corrective surgery at the IUBCVT (Târgu Mureș, Romania) between January 2014-December 2018. Inclusion was based on a set criteria, the data being subsequently analysed through statistical tests permitting consequent generalisation of resulting indicators. **Results:** All 71 patients underwent complete preoperative clinical and radiological exams, of which 52 cases (73%) presented isolated TGA, 11 (15,49%) TGA with ventricular septal defect and 8 (11%) complex TGA or reinterventions. Preoperative parameters included 57 cases (80,28%) treated with PgE after birth while 42 (59,15%) had Rashkind septostomy and 1 case (1,41%) surgical septostomy. Arterial switch intervention was used for 64 cases (90,14%), Rastelli, REV and pulmonary binding in 1 case (1,41%) each and 2 (2,81%) were reinterventions. The results showed 12 deaths (16,90%) related to surgery, 2 (2,81%) during and 10 (14%) after. Immediate complications varied from respiratory infections, arrhythmias, sepsis and others, leading to reinterventions in 17 cases (23,94%). Control echocardiography revealed pulmonary stenosis in 23 cases (32,39%) and mitral regurgitation in 38 cases (53,52%) amongst other later complications. **Conclusions:** A thorough understanding of parameters regarding before, during and after the time of corrective surgery is paramount in choosing a successful TGA therapy. Comprehensive and continuous clinical follow-ups allow accurate management and surveillance of patients after TGA surgery.

Keywords: congenital heart disease, arterial switch, cardiac surgery

RIGHT KNEE ARTHROPLASTY WITH FULL CEMENTED ENDOPROSTHESIS □

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Background: Knee-replacement, also known as arthroplasty is a frequent procedure that is performed to relieve weight-bearing on the joint surface, restore the joint function and release the pain. This kind of surgery is most commonly performed in progressive degenerative diseases which lead to deformation of joints. **Objective:** The main objective of this procedure is to restore the mobility of the affected knee joint and also aims to replace the medial and the lateral joint of the knee, which are known as the femorotibial joint and femoral patellar joint. **Material and methods:** We present the case of a 66 years old male, diagnosed with primary osteoarthritis, who also had a history of fracture of the tibial tuberosity for which the patient underwent a surgical intervention 20 years ago. According to Ahlbacks classification, the patient was in the final stage with bone wear larger than 10mm and therefore required surgical intervention. The surgical intervention had started with an incision performed on the right knee patella and the procedure continued through a parapatellar approach, with an osteotomy on the distal part of the femur and proximal part of the tibia. As a result of the former complications, the joint could not be exposed through dislocation and therefore osteotomy of tibia tuberosity had to be done. The tuberosity of tibia was reinserted in the final stage and the joint received a full posterior-stabilized cemented endoprosthesis **Results:** The postoperative evolution was favorable without any intraoperative surgical complications and the patient began to recover the function of the affected knee. He was released from our department after 9 days. **Conclusions:** Primary knee arthroplasty, on average, results in substantially increased patient quality of life. Revision knee replacement results in a lower, but still positive, gain in quality of life. Though, there is a considerable variation in patient outcomes across all procedures.

Keywords: tibial tuberosity fracture, knee arthroplasty, endoprosthesis

ACQUIRED PTOSIS- CLINICAL ASSESMENT AND SURGICAL APPROACH

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Background: Ptosis is an ophthalmological condition that consists in a lower position of the superior eyelid, which can be both unilateral or bilateral. This condition is divided into two major categories: the congenital and the acquired one. Based on the physiopathological mechanism, acquired ptosis is classified into aponeurotic ptosis (caused by senescent slippage of the aponeurosis), myogenic ptosis, (in muscular dystrophies), neurogenic ptosis (caused by third nerve paralysis, Horner's syndrome), and mechanical ptosis (in cases of dermatochalasis).

Objective: The purpose of this study was to present the criteria used in the initial evaluation of patients and to evaluate the outcome of the selected surgical procedure. **Material and methods:** The present study is an interventional, retrospective clinical study that includes 20 cases of acquired ptosis surgeries performed by the same surgeon at the "Saint Spiridon" Emergency County Hospital, Ophthalmology Clinic, Iasi between 2017 and 2018. The age of patients varied between 40 and 70 years. The choice of operation took into account the type of ptosis, the amount of ptosis, the function of the levator muscle and the eye movements. The surgical technique consisted of anterior levator aponeurosis advancement, anterior levator resection, or frontalis suspension using silicone rods. **Results:** Of the 20 cases performed, in 17 cases the evolution was favorable with no postoperative complications. Two patients needed suture readjustments the following day and in one case with bilateral involuntional ptosis it was necessary to perform a second intervention. After a two-year follow-up, no relapses were observed. **Conclusions:** The results of this clinical study provide additional data on the safety and efficacy of the selected surgical techniques.

Keywords: Ptosis, Levator aponeurosis, Levator repair, Frontalis suspension

YOUNG AGE IN BREAST CANCER : A QUALITY OR A LIMITATION AFTER SURGICAL TREATMENT?

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Background: Breast cancer among young women (≤ 40 years old) is a rare entity, with young age being considered as a negative prognostic factor for the evolution of breast cancer. Patients are frequently undergoing surgery as a first measure of treatment, therefore they have an increased susceptibility for postoperative complications. **Objective:** The purpose of this retrospective, non-randomized study was to investigate the association between young age and the postoperative complications compared to their older counterparts. **Material and methods:** We contacted by telephone 212 patients treated surgically in the County Clinical Hospital Tg. Mures, Clinic of Surgery I, from which 205 patients aged 34-84 responded and we included them in the study. Patient information was collected based on the observation sheets and the telephone questionnaire. We compared the incidence of postoperative complications (postoperative hematoma, wound infection, wound dehiscence, lipogranuloma, breast abscess, axillary abscess, gigantocellular reaction of foreign body type, seroma, pain, areolar necrosis, aseptic necrosis) and the overall survival between women ≤ 40 years and > 40 years. For statistical analysis we used GraphPad Prism 8, Fisher exact test and Log-Rank test considering $p < 0.05$ as statistically significant. **Results:** Following the analysis, we found no statistically significant difference regarding the incidence of complications between patients in the two groups ($p > 0.9$, OR=0.9475, 95%CI 0.35-2.40): postoperative hematoma ($p=0.99$, OR=0.95, 95%CI 0-5.47), wound infection ($p=0.5486$, OR=1.406, 95%CI 0.12-8.41), wound dehiscence ($p=0.65$, OR=4.262, 95%CI 1.127-16.05), lipogranuloma ($p=0.1059$, OR=2.737, 95%CI 0.89-8.61), breast abscesses ($p=0.99$, OR=0.95, 95%CI 0-8.024), axillary abscesses ($p=0.99$, OR=0.95, 95%CI 0-24.32), foreign body type gigantocellular reaction ($p=0.37$, OR=0, 95%CI 0-2.52), seroma ($p > 0.99$, OR=0, 95%CI 0-12.06), lymphedema ($p > 0.99$, OR=0.77, 95%CI 0.069-4.82), pain ($p=0.40$, OR=0.50, 95%CI 0.14-1.79), areolar necrosis ($p=0.16$, OR=11.69, 95%CI 0.58-222.5), aseptic necrosis ($p > 0.99$, OR=0, 95%CI 0-13.08) and the overall survival ($p=0.3$). **Conclusions:** As a result of this study, young age does not appear to be a negative prognostic factor for the postoperative evolution of breast cancer patients, nor for the overall survival. However, some complications are more likely to occur in young people and to shadow their prognosis: the wound

dehiscence($p=0.65$, $OR=4.262$, $95\%CI$ 1.127-16.05) and areolar necrosis($p=0.1593$, $OR=11.69$, $95\%CI$ 0.58-222.5).

Keywords: breast cancer, young age, complications

MINIMALLY INVASIVE APPROACH IN HIP ARTHROPLASTY

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Background: During the past decades Total hip arthroplasty (THA) has improved the quality of life of both men and women of all ages representing a definitive treatment for a wide variety of pathological conditions of the hip such as endstage osteoarthritis, inflammatory arthritis, Osteonecrosis, Displaced fractures of the femoral neck. **Objective:** The aim of our study was to present the minimally invasive surgical techniques and all the advantages of using such a minimally invasive approach in hip arthroplasty. **Material and methods:** The patient is placed in the supine position with the leg extended, the incision begin 5cm proximal to tip of greater trochanter and extends down the line of the femur about 8cm. Fascia dissection. Preparation of anterolateral muscular layer. Exposure and incision of capsule. Positioning of the leg in external rotation and hyperextension for femoral neck osteotomy. Preparation of acetabulum and cup implantation. Leg in external rotation, hyperextension, and adduction. Capsular release nearby greater trochanter and stem implantation. Repositioning of the capsule and wound closure. **Results:** Patients who underwent minimally invasive total hip replacement benefits of a short operatory time, reduction of the hospitalization period, early mobilization, lesser use of pain killers, reduction of perioperative hemorrhages, smaller wound and no need for drainage tube. **Conclusions:** Larger incisions and surgical approaches have been associated with larger blood loss, increased need for transfusion, greater use of analgesics, a longer hospital stay, and a slower recovery. Minimally invasive approach in total hip replacement provide quicker functional recovery due to the potential reduction of soft tissue damage via a smaller and tissue-sparing approach much improved perioperative pain management, much more rapid weight-bearing, and a substantial cost-effective impact on the hospitals.

Keywords: hip, arthroplasty, minimally invasive surgery, orthopedics

NO MAN'S LAND; CAN WE CONQUER?

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Background: No man's land (zone II Verdan) is zone of the hand, which over time has brought great problems in the tendon suturing techniques. Due to the anatomical elements present in this area, tendon reconstruction has encountered different problems such as: tendon blockage, adhesion or tendon rupture. in order to perform an adequate reconstruction suture, an increased time should be given to the tendon suture, but also a long recovery period. **Objective:** The existence of an almost ideal suture, would bring great benefits for both the surgeon and the patient thus the social reintegration being early. **Material and methods:** There were analyzed 7 studies published in the period 2016-2020, which analyze different techniques of tendon suturing. The tests were performed on tendon of human and animal origin, but also retrospective studies to analyze the complications and evolution of the suture. The tests were based on biomechanical elements: tensile strength, stiffness, and gap formation. Different sutures were analyzed: 6 strand cruciate, Adelaide, modified Kessler; locking loop suture; modified Lim/Tsai; 4 stranded cross stictch cruciate; 4 stranded double Penigton; 4 stranded Penigton; modified Brunelli; 2 strand and 4 strand sutures. **Results:** The suture techniques analyzed proved to be effective, but some were better compared to the others so that the number of threads was directly proportional to the resistance offered by the suture. However, an increased number of intact tendons may increase the tendon blockage rate, and the rupture rate will vary depending on the operating technique and the surgeon's experience. **Conclusions:** Currently, there are a variety of surgical tendon suturing techniques, each with its advantages and disadvantages, and choosing a particular suture is the surgeon's option.

Keywords: Zone II Verdan, tenorrhaphy, core sutures

ENDOVASCULAR TREATMENT OF ILIAC ARTERIES ATHEROSCLEROTIC LESIONS

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Background: Endovascular treatment has become the first choice therapy in steno-occlusive iliac artery atherosclerotic disease. Percutaneous transluminal angioplasty (PTA) and stenting of iliac arteries lesions has been proven to be durable with a high success rate and related outcomes comparable with surgery and low perioperative complications. **Objective:** The purpose of this paper is to present the endovascular treatment technique and its benefits to patients with atherosclerotic lesions of iliac arteries. **Material and methods:** We illustrate the balloon angioplasty and stenting technique and we make a short review of the literature regarding the imaging diagnosis, endovascular treatment indications and technical possibilities in iliac artery steno-occlusive lesions. **Results:** Endovascular treatment for iliac revascularization is routinely performed with the patient under local anesthesia. Retrograde access of common femoral artery is the most used vascular access for iliac lesions. Treatment decision is based on the symptoms patients have and imaging investigations, out of which the most commonly used are Doppler ultrasound, CT angiography and Digital Subtraction Angiography (DSA). DSA offers the unique advantage of incorporating diagnostic confirmation and endovascular treatment in a single session. The imaging criteria for the treatment decision are calcifications, location of the lesion, the degree of stenosis and the characteristics of the atherosclerotic plaque. In addition to all of the above, TransAtlantic Consensus Document on treatment of peripheral arterial obstructive disease (TASC) classification of the disease severity for iliac lesions is used to define lesion category. The indications for iliac stent placement are failed or inadequate PTAs, the presence of a flow-limiting dissection and calcified or occlusive lesions. The choice for the appropriate stent type depends on the lesion's morphology and location. **Conclusions:** Endovascular treatment has become the first therapeutic option for iliac steno-occlusive atherosclerotic disease over the last two decades due to its low complications rate, long patency outcome and its less invasive character.

Keywords: iliac artery occlusion, balloon angioplasty, stent angioplasty

OSTEOARTHRITIS – 3D PRINTED INTERNAL PROSTHESIS

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Background: The mobility and normal aspect of a member is assured by the quality of the joints. When the cartilage is destroyed, it brings structural modification of the components in that articulation. These changes lead to pain and functional impotence especially when aging. It has a frequency of 85 out of 100 for people between 75 and 79 years old. An improper lifestyle and certain professions influences the development of the dysfunction. Initial stages of the affection can be medicated or treated with adjuvant methods. Amplification of the symptoms reduces the number of possible surgeries and ruins articulation's function. **Objective:** The main scope of this project is to offer a new solution to current finger prosthesis that will replace the metal parts with a friendlier material. The changes are to raise the satisfaction level of consumers by eliminating the metallic implant in a thick bone. **Material and methods:** Joint components are wrapped with thin lines of elastic material that provide good support without interfering in any organic processes. The space between the bones comes with a mechanism that allows the specific articular movement, similar to the existing solution. Subjects for testing are biocompatible resin, PEEK and P(GLA/PLA) with HAP treated coating. Each of them are 3D printed. **Results:** PEEK showed most similarities to bone's properties, but lacks elasticity. Resin proved to be easily modelled and good mechanical properties, while P(GLA/PLA) has proper elasticity for the fixation bands. Tests are still running for existent materials and developing a new one with exact characteristics as needed. **Conclusions:** Due to their similar properties with bone's, chosen materials present high potential in artificial articulation replacement. Optimal results are expected for a mix between two of selected materials, taking mechanical properties from PEEK and resin, and the elasticity and price from P(GLA/PLA).

Keywords: Osteoarthritis, 3D prosthesis, Biomaterials, Finger joints artificial replacement

SURGICAL MANAGEMENT IN CONGENITAL CARDIAC CONDUCTION DISORDERS

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Background: Congenital cardiac conduction disorders (CCCD) are a group of disorders with multifactorial etiologies. Some forms require permanent pacing, which is often achieved with an epicardial pacemaker (EP) in the pediatric population. Dilated cardiomyopathy (DCM) is a risk factor for mortality and is strongly correlated with the etiology. **Objective:** The aim of this study was to analyse the long-term outcome of patients with CCCD treated by EP implantation. **Material and methods:** We retrospectively analysed 26 pediatric patients who underwent EP implantation for CCCD between October 2005-July 2019. The patients were grouped and regrouped according to presence and absence of DCM and postoperative complications. **Results:** The main CCCD were total/high-grade atrioventricular block (AVB) (n=22), sinus node dysfunction (n=4) and long QT syndrome (n=2). Statistical analysis revealed a significant association between gender and DCM (p=0.0005), female gender having a 4.278 higher risk of developing DCM. There was no significant association between prenatal diagnosis, age ≤1 year at implantation, prematurity, associated congenital cardiac malformations and DCM, however, these groups presented a higher risk of developing DCM (RR=1.33; 1.364; 1.50; 1.364). There was no significant association between primary diagnosis and DCM, however, patients with AVB had a higher risk of developing DCM (RR=1.773). Patients with DCM were significantly more symptomatic (p=0.0472). Ejection fraction prior to implantation was significantly lower in the DCM group (p=0.0178). Regarding postoperative complications, there was no correlation between age and weight at implantation and complications. Sternotomy did not present a risk factor for complications. Device weight and volume were significantly smaller in the group with complications (p=0.045; 0.017). Kaplan-Meier survival curve showed a survival rate of 88.11% at 13 years. **Conclusions:** Untreated, CCCD present a significant morbimortality. Pregnancy monitoring and multidisciplinary approach can help in early diagnosis and efficient long-term management of these patients, for the eventual conversion to an endocardial pacemaker system later in life.

Keywords: Congenital cardiac conduction disorders, Congenital atrioventricular block, Epicardial pacemaker, Dilated cardiomyopathy

WARM-BLOOD RETROGRADE CARDIOPLEGIA, EFFICIENT METHOD FOR MYOCARDIAL PROTECTION OF CORONARY PATIENTS WITH TOTAL ARTERIAL REVASCULARIZATION

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Background: Coronary disease currently represents a worldwide health problem, with patients frequently requiring CABG (coronary artery bypass graft) surgery. During these interventions, the heart must be protected from ischemia, by administration of cardioplegic solutions. **Objective:** The aim of this study is to evaluate the benefits of using retrograde warm-blood cardioplegia as a method of protecting the myocardium during cardiac surgery, for patients with severe coronary disease. **Material and methods:** A number of 50 patients, operated on between January 2015 and July 2019 at the Tg Mures IUBCVT hospital were included in the study. During surgery, in all of the cases, the only method used to protect the myocardium from ischemia was the administration of warm-blood retrograde cardioplegia, via the coronary sinus. **Results:** The study includes 50 patients, 86% of them male and 14% female, while the mean age of the patients is 52 years old. All of the patients presented multiple and severe coronary lesions, requiring multiple bypass grafts (2 or 3). All of the patients underwent total arterial revascularization. Post-operative evaluation of the patients' left ventricle ejection fraction, level of lactic acid in the blood as a result of ischemia and the requirement of inotropic medication were used as means of verifying the efficiency of the heart's protection. The mean duration of stay in the ICU was 1-4 days, with the patients being discharged in 8-10 days post-op. **Conclusions:** The use of retrograde warm-blood cardioplegia is an efficient and safe way of protection for the myocardium, during cardiac surgery, although it is more difficult to perform from a technical point of view.

Keywords: cardiovascular surgery, retrograde cardioplegia, coronary disease

THE EFFECT OF CIGARETTE SMOKING ON THE EARLY POSTOPERATIVE OUTCOME AFTER BREAST CANCER SURGERY

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Background: Breast cancer is the most common cancer among women worldwide and it is the second leading cause of cancer related death after lung cancer. The complication rate after breast cancer surgery is high due to multiple lifestyle factors, one of them being cigarette smoking (CS). CS has a prolonged effect on inflammatory and reparative cell functions leading to delayed wound healing and complications. **Objective:** This study aims to assess the effect of CS on postoperative local complications after breast cancer surgery. We wanted to prove that there is a strong association between CS and increased incidence of several complications. **Material and methods:** We conducted a retrospective study in which 212 patients were included who underwent BCS between 2014 and 2017. We classified the patients in two groups: smokers(S) and non-smokers (NS). Smoker status was correlated with the development of several postoperative complications. The data was processed using Microsoft Office Excel 2010 tables and for the statistical analysis we used GraphPad Prism8 and Fisher's exact test. P values < 0.05 were considered statistically significant. **Results:** Out of 212 patients, 63(30.73%) were smokers and 82.54% of them developed postoperative complications. Statistical analysis shows a significant relation between smoker status and the development of wound infections (p=0.003), wound dehiscence (p<0.0001), lymphedema (p=0.006), chronic postoperative pain (p<0.001) and aseptic necrosis (p=0.02). **Conclusions:** According to our results, CS was strongly associated with wound complications following breast cancer surgery and has been shown to be a significant risk factor for morbidities as lymphedema and pain.

Keywords: cigarette smoking, breast cancer, retrospective

ADVANTAGES AND DISADVANTAGES OF THE USE OF PORT-A-CATH IN ONCOLOGICAL PATIENTS: A SYSTEMATIC REVIEW

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Background: The Port-A-Cath (PAC) is a totally implanted catheter system for central venous access. The device is composed of a subcutaneous reservoir compartment and a catheter positioned into a central vein. The PAC can be used for the administration of chemotherapy, blood and derivatives, fluids, nutrients, medications, and blood sampling. Due to its versatility, it plays an essential role in the management of oncological patients. **Objective:** The aim of this study is to analyze, collect and describe the evidence of the advantages and disadvantages of the Port-A-Cath use in oncological patients reported in the literature. **Material and methods:** This systematic review was conducted using 17 clinical records. The source included electronic databases: PubMed, Google Scholar, Cochrane Library. All the literature included in the study was published in English. **Results:** The reported advantages were minimal maintenance, reduced peripheral multiple punctions, venous capital preservation, easier venous access, lower risk for extravasation, reduced physical and psychological distress, good aesthetic result, an increase of quality life and a lower rate of complications which make the PAC a suitable instrument in the cancer patient treatment. Peri-operative, post-operative and long-term complications such as pneumothorax, malposition, arterial puncture, hematoma, infection, occlusion, wound dehiscence, skin necrosis, migration, extravasation, disconnection and rupture of the catheter were reported in a few numbers of cases. **Conclusions:** The use of the Port-A-Cath allows and simplifies the multidisciplinary approach of oncological patients. Having reviewed the bibliography, we conclude that the clinical use of the Port-A-Cath in oncological patients is a safe and reliable vascular route. Despite the benefits, the PAC is associated with the risk of minor and major complications. However, it represents the most recommended solution for prolonged intravenous therapies to present.

Keywords: Port-A-Cath, Central Venous Access, Oncological Patients, Venous Device Complications

MEDICAL AND SURGICAL ASPECTS IN AORTIC DISSECTION

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Background: Aortic dissection is the most fatal pathology of the aorta and despite the evolution of diagnostic and surgical techniques, its management still remains a challenge. **Objective:** The aim of this paper is to highlight medical and surgical aspects of aortic dissection and determine the prognostic role of blood pressure on presentation, season, smoking, lactate dehydrogenase and creatine kinase levels. This study offers perspective on the etiology of aortic dissection, a complex pathology with a significant impact on life expectancy. **Material and methods:** This retrospective study included 110 patients admitted from 2013 to 2017 in the Cardiovascular Surgery Clinic for Adults of the IUBCVT in Târgu Mureș. We analyzed data regarding the gender of the patient, age, county, season, type of dissection, condition at discharge, smoking status, blood pressure (BP), lactate dehydrogenase (LDH) and creatine kinase (CK) levels. **Results:** 75% patients had type A dissection. Mean age of patients was 62.48 +/- 13.14, with male predominance (75%). The predominant season was autumn (30.9%). The post-operative survival rate was 60%, which respects the literature. 49% of patients had BP > 140/90 mmHg on presentation and 12.7% had a BP below 90/60 mmHg, but the value on presentation did not influence significantly the survival rate. 34% were smokers. Smoking was significantly associated with type A (p=0.04). LDH levels were high in 66.3% of patients and were associated statistically with type A (p=0.04), CK levels were high in 50.9% and neither was associated with early post-operative mortality (p=0.4, p=0.9). **Conclusions:** Smoking and high lactate dehydrogenase levels were significantly associated with type A aortic dissection. No significant difference was found between type A and B regarding sex, age, season, blood pressure, creatine kinase. The season, blood pressure on presentation, smoking history, lactate dehydrogenase and creatine kinase levels did not significantly influence the early post-operative mortality in this study.

Keywords: aortic dissection, prognosis, risk factors

THE IMPORTANCE OF BIOMETRY IN CATARACT SURGERY

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Background: Biometry represents a very important milestone in the preoperative medical assessment of the patient that undergoes surgical treatment for cataract. It determines the dioptric power of the pseudofakic IOL according to the radius of curvature of the cornea (determined by keratometry) and according to the axial length of the eyeball. The biometry can be achieved both by contact after topical anesthesia but also without contact. Contact biometry or ultrasonic biometry can be performed by two techniques: contact or flattening technique and immersion technique. **Objective:** Identifying the best method to determine correctly the artificial lens dioptrics in order to achieve the best postoperative visual acuity. **Material and methods:** We conducted a retrospective study in which we included 53 patients that underwent cataract eye surgery between January 2017 until March 2020 performed at the Clinic of Ophthalmology in Targu Mures. All the data included in this study were of patients in which both contact and immersion biometry was performed. We evaluated the preoperative medical assessment of the patients which included: visual acuity, eye refraction exam and biometry. Postoperatively we looked into visual acuity and refraction exam to assess the surgery outcome. Descriptive statistics was performed with Microsoft Excel. **Results:** A total of 53 patients were included. The mean age was 72.58; 24 (45.28%) were female and 29 (54.72%) male. Of these, 12 patients also have retinal pathology, which despite cataract surgery their vision shows only an improvement but not total recovery. The cataract types identified are the following: 25 cases (47.16%) corticonuclear, 12 (22.64%) subcapsular posterior, 11 (20.75%) nuclear, 4 (7.54%) cortical and 1 (1.8%) morgagnian cataract. **Conclusions:** Of all the patients examined we can see that the majority had corticonuclear cataract. Between the two types of ultrasonic biometries, the immersion technique had a higher accuracy but with greater technical difficulty.

Keywords: ophthalmology, cataract, biometry, lens

TRANSCATHETER AORTIC VALVE IMPLANTATION VERSUS SURGICAL AORTIC VALVE REPLACEMENT IN HIGH RISK PATIENTS WITH SEVERE AORTIC STENOSIS

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Background: Aortic stenosis is a progressive degenerative disease, characterized by the narrowing of the aortic valve. This causes hemodynamic disturbance, as the valve area is reduced from the normal 3-4 cm² to less than 1cm². Past this point, significant obstruction of left ventricle outflow develops, resulting in left ventricle hypertrophy. In late stages of severe aortic stenosis, the left ventricle decompensates, resulting in dilated cardiomyopathy and ultimately heart failure. **Objective:** The purpose of the study was to analyze the outcome of the open-heart surgical treatment versus the percutaneous procedure in the management of severe aortic stenosis. **Material and methods:** We conducted a retrospective, descriptive study which included 78 patients admitted and treated for severe aortic stenosis, from 01.01.2018 to 31.12.2019 in the Cardiovascular Disease and Heart Transplant Institute of Târgu-Mureș. 30 patients underwent transcatheter aortic valve implantation (TAVI), and the other 48 underwent surgical aortic valve replacement (SAVR) procedure. The inclusion criteria were patients considered at increased surgical risk, with symptomatic severe aortic stenosis, and the exclusion criteria were patients with a life expectancy less than 1 year, and patients not suitable for percutaneous vascular access. **Results:** The results of the study have shown a lower rate of all-cause mortality or major adverse cardiac and cerebrovascular events in the TAVI lot at both 30 days and 12 months follow-up. **Conclusions:** Before TAVI, SAVR was the only choice for aortic stenosis and has demonstrated improved survival in symptomatic patients. However, a large number of cases are not candidates for SAVR due to the prohibitive surgical risk and associated comorbidities. TAVI was first described in 2002, and since then has evolved as a routine procedure for high-risk patients with aortic stenosis.

Keywords: aortic stenosis, surgical aortic valve replacement, transcatheter aortic valve implantation

NUTRITION AND DIETETICS

ASSESSMENT OF NUTRITIONAL STATUS IN PATIENTS WITH BILIARY SURGICAL PATHOLOGY

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Background: Biliary tract surgical pathology is one of the most frequently encountered diseases at the level of the digestive system. In the last decade, prospective studies have been reported in the literature that correlates the metabolic modifications influenced by the nutritional habits with the genesis of the biliary tract lithiasis. **Objective:** The aim is to evaluate the nutritional assessment in patients with biliary surgical pathology admitted in the 1st Surgical Clinic in Tîrgu Mures Emergency County Hospital. **Material and methods:** We conducted a prospective observational study with a nutritional aimed questionnaire for patients diagnosed with biliary surgical pathology over a three-month period, from November 2019 to January 2020. Preoperative paraclinical parameters and the dynamic follow-up during hospitalization with surgical intervention techniques were also recorded. **Results:** A total number of 87 patients were reported over the three months. The average age of the patients was 56 years ranging from 19 to 87 with a female predominance of 62.84 %. The average BMI was 28.7 ($p < 0.021$). 34.5% were reported as chronic smokers ($p > 0.541$). Patients reported regular physical activity habits in 20% of cases with an average of 3 meals per day and with a predominance of high fat diet 64.34% ($p < 0.023$). The main type of surgical intervention was laparoscopic cholecystectomy, 91% of the cases with no postoperative complications. **Conclusions:** Biliary surgical pathology has increased in the last years especially to younger patients. Obesity and an unhealthy lifestyle play a major role. It remains a public health concern and one of the most frequently encountered surgical diseases. Nutritional evaluation and diet- changing recommendations can decrease the incidence overall.

Keywords: Biliary pathology, nutritional status, biliary lithiasis, obesity

RED/BLACK GRAPE POMACE CONSUMPTION IMPACT ON COMMON CHRONIC DISEASES

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Background: According to many studies, the red grape pomace (RGP), the byproduct of wine making, is a good source of polyphenols. Resveratrol from grapes has been reported to serve as a neuroprotective, cardioprotective, antiproliferative, antiviral, antibacterial, anti-inflammatory and antiangiogenetic agent. **Objective:** Our aim was to interpret the recent literature about the effect of RGP upon the consumers' health. **Material and methods:** A systematic review has been made from recent studies, mainly from PubMed databases (using the Google Academic search engine), regarding the impact of the resveratrol and the other valuable phytonutrients from grapes in different chronic pathologies. **Results:** The phenolics distribution in grapes is approximately 5% in juice, 1% in pulp, 30% in skins and 64% in seeds. Whole grape represents a natural combination of resveratrol (primarily found in skin) and other valuable phytonutrients, of whose synergistic interactions lead to improved therapeutic efficacy. Regarding type 2 diabetes, three of the studies have shown that grape pomace consumption was associated with healthier insulin chemistry and blood sugar levels. Many of the studies provide evidence that resveratrol is correlated with a reduced risk of cardiovascular diseases. In vivo and in vitro studies show the chemopreventive efficacy of grapes extract, inducing apoptosis in the analyzed malignant cells while enhancing the growth and viability of normal cells, authors suggesting it as a suitable alternative for both prevention and therapeutic purposes. In other study, the red grape marc flour (rich in polyphenols and low in digestible carbohydrates) was used as food ingredient in durum wheat spaghetti to decrease the glycemic load intake and increase phenolic antioxidants. **Conclusions:** Data from the reviewed studies suggested that RGP has a positive impact on chronic pathologies like diabetes, cancer and cardiovascular diseases, so that we can take into consideration the grape marc flour as a food supplement recommendation.

Keywords: grape marc, cardiovascular disease, type 2 diabetes, resveratrol

LACTOSE OR MILK PROTEINS, FREQUENT CONFUSION OF FOOD SENSITIVITY

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Background: It is known that the enzyme deficiency of lactase may be responsible for symptoms caused by the consumption of milk, defining lactose intolerance. Recently it has been shown that the presence of IgG antibodies to milk proteins may also be responsible for symptoms related to dairy consumption. **Objective:** Through this presentation we want to highlight the difference between lactose intolerance and milk protein sensitivity. **Material and methods:** We present the clinical case of a patient who came for consultation for digestive symptoms related to the consumption of milk products. On clinical criteria, he was diagnosed with lactose intolerance and was advised to exclude lactose-containing foods. Even following a lactose-free diet, the symptoms persisted and the patient presented to another medical service. The lactose tolerance test was performed by giving 25 grams of lactose in 250 ml of water in the morning on an empty stomach and blood glucose levels were determined before ingestion of lactose and then after ingestion every 30 minutes for 2 hours. The test is considered positive if blood sugar does not increase after ingestion of lactose, showing lack of lactase. Subsequently, specific IgG antibodies against dairy proteins were determined from the blood of the patient using the Imupro test. **Results:** The patient's blood sugar increased from the initial fasting value of 92 mg/dl to 130 mg/dl and then progressively decreased. Thus, the lactose tolerance test was considered negative. The food sensitivity IgG panel Imupro showed high levels of antibodies to cow, sheep and goat milk proteins. Excluding all dairy products from the diet of the patient significantly improved the symptoms in 2 weeks. **Conclusions:** Most doctors and nutritionists consider lactose to be responsible for the symptomatology related to dairy consumption, but the presence of IgG antibodies to milk proteins is also important, causing various pathologies described in the literature.

Keywords: milk intolerance, food sensitivity, lactose

IS A VEGAN DIET ADEQUATE FOR CHILDREN AND ADOLESCENTS?

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Background: The prevalence of vegan diet (VD) is rising across Europe and other Western countries while a significant number of young parents pass on to their children their diet habits. In the absence of supplements, VD does not meet all the micronutrient requirements. Therefore, in young children and adolescents this restrictive diet can be potentially harmful leading to severe and sometimes irreversible nutritional deficiencies. **Objective:** We aimed to evaluate the prevalence of VD among young children and adolescents worldwide and the metabolic implications of VD. Moreover we wanted to assess the pediatric recommendations with reference to this diet option. **Material and methods:** Using PubMed database we have analyzed 10 studies based on the keywords: vegan diet in young children and adolescents, vitamin B 12, iron, docosahexaenoic acid. The investigation period was 2015-2020. **Results:** The epidemiological data on eating habits in the pediatric population are still lacking. The Vegetarian Resource Group from North America was the only to study the food consumption in 1200 children and estimated that 1% of them were vegans. VD exposes the pediatric population to numerous nutritional deficiencies of vitamin B 12, vitamin D, eicosapentaenoic and docosahexaenoic acids, calcium, iron. Introduced at an early stage, VD can have a severe impact on infants physical and neurological development. The Nutrition Committee of the European Society for Paediatric Gastroenterology, Hepatology and Nutrition and also the American Academy of Pediatrics advise against VD in children. **Conclusions:** Although VD is not adapted to the human species nutritional requirements there is an interest in restrictive diets even among young children and adolescents. A VD is not recommended for infants, children and adolescents because of the nutritional deficiencies which are inevitable in the absence of supplements. Nutritional supplementation and adequate monitoring should be provided for children undergoing a VD.

Keywords: vegan diet, children, adolescents

CROSS-SECTIONAL STUDY OF FOOD PATTERN IN RELATIONSHIP WITH BODY MASS INDEX AT MURES COUNTY HIGH SCHOOL STUDENTS

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Background: According to literature data, fast food was classified as an obesogenic agent, with a role in the etiopathogenesis of overweight and obesity in adolescents, and chronic diseases later on. **Objective:** We started from the hypothesis that the fast food influences BMI at high school students towards the pattern food. **Material and methods:** We have conducted in 2019 a cross-sectional study by applying a lifestyle questionnaire to a group of students from 2 high school classes from Targu-Mures city, between 16 to 19 years old. The questionnaire was composed of 19 questions to test the hypothesis that there is a link between frequency and composition of daily meals, physical activities and BMI (height and weight parameters). **Results:** In our sample, 10.48% of subjects were obese of which 100% ate fast food daily, 100% were sedentary, 45.26% skipped breakfast regularly, and 74.71% did not eat fruits and vegetables daily. 84.35% of subjects had normal weight of which 65.59% ate fast food daily, 23.17% were sedentary, 25.26% skipped breakfast regularly, 24.18% did not eat fruits and vegetables daily and 30.31% made physically activity daily. **Conclusions:** Our study have confirmed our hypothesis that the tendency to eat unhealthy food remains high in a significant proportion of high school students and should be considered as a risk factor for various forms of pathologies. Implementation of an adequate educational programs is greatly needed.

Keywords: nutrition, obesity, fast food, healthy eating

MATRICARIA CHAMOMILLA AQUEOUS EXTRACTS - MICROBIAL CONTAMINATION AND ANTIBACTERIAL ACTIVITY

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Background: Matricaria chamomilla has been used for centuries as a healing medicine, independently of the preparation method, for external or internal use. Matricaria chamomilla contains volatile bioactive compounds such as terpenoids or sesquiterpene lactones. Several methods of extraction can be used so the bioactive principles of the plant to be preserved, with potential positive effects on human health. **Objective:** The present study tested the degree of bacterial and fungal contamination of three types of aqueous extracts of Matricaria chamomilla flowers, namely: infusion, decoction and maceration, and to assess the potential antibacterial effect of the extracts. **Material and methods:** Five types of Matricaria chamomilla dried flowers were used: 4 Romanian harvests and 1 harvest from Lithuania, which were numbered from 1 to 5. Two grams of Matricaria chamomilla dried flowers were mixed with 50 ml sterile water either without heating to obtain aqueous extracts, or by warming for 25 minutes to obtain infusions, or by boiling for 30 minutes to obtain decoctions. For macerations, plant material was left to macerate in sterile water for 8 hours. Of each extracts, 50 µl were inoculated on selective culture media for coliforms and fungi. The antimicrobial effect was tested by microdilution method on Staphylococcus aureus. **Results:** Coliform bacteria were found in all macerations from Romanian harvests (10^4 to more than 10^6 CFU/g), but not in the maceration from Lithuanian harvest. Similarly, fungi were found in 3 of the 4 Romanian harvest macerates. No bacteria or fungi were found in infusions and decoctions. Antibacterial effect against S. aureus was absent in all formulations. **Conclusions:** The effect of bioactive principles of Matricaria chamomilla are biologically inactive on S. aureus. Microbial persistence in the aqueous extracts is given by the temperature at which they are extracted.

Keywords: Bacteria, plant extracts, Matricaria chamomilla

PHYSIOTHERAPY

STUDY ON THE GENERAL PERCEPTION AND THE EFFECTIVE IMPACT ON THE QUALITY OF LIFE OF PEOPLE WHO HAVE SUFFERED A STROKE

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Background: According to studies carried out in 2015, Romania is on the third place in the countries with the most new cases of stroke and second in the number of deaths and illnesses caused by this condition. **Objective:** The main objective of the present research is to record the differences between the general opinion of the population about the effective impact on the quality of life of the people who have suffered a stroke and the objective evaluation of the patients, based on specific tests. **Material and methods:** Referring to the dependent variable, a total of 200 subjects were included, divided into two groups. The group A included 170 subjects, and represented the healthy population, while the group B included 30 subjects, patients who suffered a stroke at least 3 months ago before the study. In the case of the group A, the independent variable consisted in applying a questionnaire with 21 items, which concerned issues such as outstanding functional deficit and reintegration into society. The same issues were tracked and recorded in the group B, using specific tests, questionnaires and the interview method. **Results:** 79.4% of the subjects of the group A consider that stroke is a cause of major disability affecting daily activities and careers. When they were asked about reintegration into society, they had contradictory opinions, and 17.6% said that they would avoid a co-worker if he had suffered a stroke in the past. Regarding to the group B, the results show that 73.3% of patients can move themselves over a distance of 100m and 70% can dress themselves and 80% of the patients said that they have been viewed differently by the people in their group after suffering the stroke. **Conclusions:** The results indicate the need to raise awareness of stroke and educate the public about this condition

Keywords: Stroke, Activities of daily living, Quality of life

CONSERVATIVE TREATMENT FOR CALCIFIC TENDINITIS OF THE SHOULDER

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Background: Calcific tendinitis within the rotator cuff tendon is a common shoulder disorder that must be differentiated from dystrophic calcification, as the pathogenesis is completely different. **Objective:** The primary objective of this research was to highlight the long-term effects of shockwave therapy (ESWT) and to establish a highly efficient non-surgical therapeutic elective method in the case of calcified tendinitis in the shoulder, by combining non-pharmacological and pharmacological methods. **Material and methods:** The research methods used by us were: the bibliographic study method, the experimental method, the case study method, the observation method, the test method, the statistical-mathematical methods of data processing and the graphical method of presenting the results. Following an analysis of the problem of our study, we issued the following working hypothesis: A. Applying a conservative treatment in the incipient stages of calcified tendinitis of the shoulder for 4 months, will produce statistically significant changes regarding the efficiency of the different treatment methods. B. The efficiency of the applied treatment is significantly higher when the different types of therapeutic interventions are combined. In the study group were included 10 subjects, who completed both electrotherapy procedures, such as shock therapy and 50 minutes physical therapy sessions, under the supervision of the physiotherapist. Unlike the first group, the control group only benefited from physical therapy sessions. **Results:** The pain intensity assessed using the VAS Scale decreased significantly in the study group compared to the control group. The range of motion increased remarkably, and the quality of life assessed with the help of the DASH Questionnaire showed the tendency of considerable improvement in the study group. **Conclusions:** The results showed that shock therapy does indeed have long-term favorable effects on calcified tendinitis in the shoulder, therefore it can be considered as one of the elective treatments for shoulder calcifications.

Keywords: ESWT, pain, rotator cuff, VAS scale

THE BENEFITS OF TECAR THERAPY ON THE RECOVERY OF FLEXION AFTER REVISION OF THE ANTERIOR CRUCIATE LIGAMENT SURGERY

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Background: Anterior cruciate ligament reconstruction is one of the most common knee surgery, but, although the success rate is from 85% to 90%, the graft used can break leading to the need for another surgery, named revision of anterior cruciate ligament. **Objective:** The main objective of this research is to show the importance of using several recovery procedures to regain flexion after revision surgery of anterior cruciate ligament. **Material and methods:** This research took place at the Fizionova Recovery Clinic in Targu Mures and included 10 people aged between 24 and 44 years, all undergoing a revision surgery of the anterior cruciate ligament. The subjects followed a standardized recovery protocol and 5 of them benefited in the first weeks of recovery of the TECAR therapy, performed dynamically, associated with the protocol. **Results:** Following the treatment with the TECAR therapy, performed dynamically, eighter by passive or active movement, the subjects felt a marked improvement of pain, which helped in performing the exercises at the correct intensity and at the same time reaching flexion degrees lost. The results will be presented at the Marisiensis International Congress for Students, Young Doctors and Pharmacists. **Conclusions:** The combination of several recovery procedures can lead to significantly superior results in the postoperative treatment of the anterior cruciate ligament revision surgery.

Keywords: recovery, therapy, revision surgery, treatment

"FUNCTIONAL RECOVERY ON PATIENTS WITH ABDOMINAL SURGERY "

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Background: Surgical interventions in the abdominal sphere especially those performed for tumor pathology involve a period of immobilization that varies widely, sometimes extending over several weeks. Along with the resumption of the early nutrition kinetic recovery of these patients has an important role to play in a favorable development. **Objective:** The proposed study seeks to highlight and to assess the benefits of this motor recovery. **Objectives:** The proposed objectives were to increase tolerance to the effort to rehabilitate the respiratory function the decrease in functional deficit and reintegration into the socio-occupational environment **Material and methods:** On a batch of 30 patients who have undergone abdominal surgery. I considered useful for carrying out the following recovery methods: passive and active mobilization , supported walk with frame or crutches and respiratory techniques. The evaluation was carried out for a questionnaire, analyzing the length of the recovery period. **Results:** After the implementation of the recovery program on the group of patients over a period of a few weeks, i observed at 90% of patients an improvement in the patient's health status, an increase in tolerance to the effort and an increase of life expectancy. **Conclusions:** As a conclusion of this study, an early recovery program started by patients has a positive effect by subtracting the recovery period after discharge from the hospital, the patients recommended a program that should be followed at home by the patients for a complete recovery.

Keywords: Surgical interventions, kinetic recovery, recovery program.

IMPROVEMENT OF FINE MOTRICITY IN THE FIELD OF PEDIATRIC ONCOLOGY

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Background: Physiotherapy intervention is a primary factor in the final picture of the small oncological patients' recovery. **Objective:** The objectives of this research consist in improving the motricity of the distal segment-the hand, with manual and occupational therapy approaches, increasing the quality of life, improving the visual coordinating skill and the psychomotor elements too. **Material and methods:** Analyzing the case we can make the following hypothesis: After applying the activities of manual ability and occupational therapy, changes will be seen in improving the fine motor skills of children diagnosed with diseases of pediatric oncology. **Subjects:** Our

group consists of 10 subjects with 3 oncological pathologies: Edwing Sarcoma, Acute Lymphoblastic Leukemia and Hodgkin's Lymphoma, divided into 2 age groups, the research being carried out on the hemato-oncology department of the Pediatric Clinic, Târgu-Mureş, for a period of 5 months. **Methods:** From the early stages we have evaluated the subjects using the Portage Test and the game-test „Skilled Hands”. In this time patients followed both a manual therapy program in the form of playful activities and an active and passive therapeutic physical exercise, realized when the motor and psychomotor condition of the small patients had allowed this fact, and they will be reassessed at the end of the period. **Results:** Following the initial evaluation of 4 subjects out of 10, from a maximum score of 50 points/subject in the Portage Test, an arithmetic average of 86% has been obtained and in the final evaluation of the same 4 subjects we receive an arithmetic average of 91.5%. There was a considerable improvement of 5.5%. For the other patients the evaluations are ongoing. **Conclusions:** Afterall, favorable results were obtained. Physiotherapy is an important factor in optimizing oncological treatment.

Keywords: pediatric oncology, fine motricity, manual therapy, physiotherapy intervention

IMPROVING WALKING IN CHILDREN DIAGNOSED WITH AUTISM

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Background: Specialists in functional therapy have an important role in the education and re-education of walking. **Objective:** Improving walking, correcting body alignment and improving postural awareness, improving coordination and balance, promoting relaxation. **Material and methods:** The hypothesis of our research was: the methods and means applied in our study will bring an improvement of coordination and balance in walking. Place and period: the research was conducted at the School Centre for Inclusive Education No.2 from Târgu-Mureş, for a period of six months between October 2019 - March 2020. Group of subjects: six students aged 14-17, diagnosed with autism. Methods: Frenkel, motion games. Evaluation: the Portage motor scale was implemented, adapted, in 2 stages: initially and finally. **Results:** Our research is still in progress, but from the initial evaluation from a maximum score of 100 points/subject, children obtained an arithmetic mean of 53.33%. Children follow a series of therapeutic physical exercises with the use of special equipment to improve their walking. In the next period, we intend to implement the final evaluation. **Conclusions:** The children showed a lot of involvement, they were active and cooperative in carrying out all the exercises and activities proposed by us. With each of them, there was a special connection because they are wonderful children from whom we also managed to learn some new beautiful things.

Keywords: autism, walking, physiotherapy, coordination

THE PARTICULARITIES OF PHYSIOTHERAPY IN LIGAMENTOPLASTY OF PATIENTS OVER 40 YEARS OLD

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Background: While ligamentoplasty is a well known surgical option for torn ACL (anterior cruciate ligament), we cannot contest the benefits of post-operative physical training. It is not only beneficial for the organic regaining of movement and its integrated parts but also for doing it in a safer and faster manner. **Objective:** The primary objective of this research is to highlight the benefits which belong only to physiotherapy in ligamentoplasty of patients over 40 years of age by combining different techniques and methods with the usage and optimization of the human's natural healer: the movement. **Material and methods:** Following an analysis of the problem of our study, we emit the following hypothesis: the patients over 40 years of age benefit from a faster recovery time after ligamentoplasty if they go through a physical exercise regimen that is not only specific to post-operative knee rehabilitation, but also to each stage of it as opposed to patients in the same age range that do not follow any type of post-operative physical training. The research methods used by use are: the bibliographic study method, the experimental method, the observation method, the test method the statistical-mathematical methods of data processing and the graphical method of presenting the results. The research took place at Kinetica, Târgu Mureş, where we took 20 patients to work with. Pre-operative, half of them had a score of 3 on the Tenger Activity scale, while the other half had a score of 4. **Results:** 3 months after physical therapy, all patients scored an average of 3 on the Tegner Activity scale, as a result of a telephonic questionnaire. **Conclusions:** We want to prove that

physiotherapy, if applied as rehabilitation after ligamentoplasty, offers patients a faster recovery, reduces pain and brings patients closer to their maximum potential of performing ADLs and different sports.

Keywords: ligamentoplasty, rehab, movement, ACL

POST-OPERATIVE RECOVERY AFTER PARTIAL ARTHROSCOPIC RESECTION OF THE INTERNAL MENISCUS

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Background: As a part of the anatomy knee, the meniscus represents an important element, protecting the articular cartilage, reducing the pressure and stabilizing the knee. Whether we are talking about athletes or people who carry out daily activities, meniscus tears are a common pathology, causing disorders. **Objective:** The objective of the research is to demonstrate the benefits of the physiotherapy rehabilitation program, after arthroscopic meniscectomy of people over 40 years of age, which reduces pain and restores normal knee function. **Material and methods:** Starting from the basic idea, we developed the following hypothesis: After the application of a partial postmeniscectomy recovery protocol, over a batch of 20 subjects over 40 years, for a period of 3 months, patients whose functions have undergone changes in following the injury, will regain their maximum targeted potential, demonstrating the effectiveness of the physiotherapeutic intervention to recover the altered functions. **Methods:** The batch group is also the witness group, so we have applied to the subjects the IKDC test as a method of evaluation, both initial and final after 3 months, to monitor their pain level and their functional capacity. In addition to this test we also used the bibliographic method, the observation method, the statistical-mathematical method for data processing and the graphical method of presenting the results. **Results:** In November 2019, with the help of the IKDC test, we have applied the initial postoperative evaluations to the 20 subjects, obtaining an arithmetic average of 70.4%. Subsequently, following the final evaluation of the same subjects, we have obtained an arithmetic average of 82.41%, finding an improvement of 12.01% which demonstrates the role of the physiotherapeutic intervention in the presence of recovery after partial meniscectomy. **Conclusions:** Physical recovery therapy is an indispensable factor in the final process following partial arthroscopic meniscectomy.

Keywords: internal meniscus, meniscectomy, IKDC test, physical recovery

THE INFLUENCE OF PROFESSIONAL SPORTS ON THE REHABILITATION AFTER LIGAMENOTOPLASTY

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Background: The anterior cruciate ligament (ACL) rupture is a common pathology that mostly professional sportsmen develop. Ligamentoplasty consists of harvesting and grafting a ligament from the patient's own body. The rehabilitation using physiotherapy after an ACL reconstruction is essential for a full recovery, improving muscle strength and tone. **Objective:** The purpose of this study is to compare the recovery of professional sportsmen with that of patients who do not practice any sports professionally. **Material and methods:** Group 1 is represented by 5 patients who do not practice sports professionally and group 2 is represented by 5 sportsmen. Both groups benefited from therapy assisted by a physical therapist for 6 months. The measurements (joint mobility, pain intensity and compliance to therapy) have been made after 10 days and after 4 months. **Results:** At the 10-day mark, group 2 has performed better than group 1: joint mobility increased by 45° compared to 23°; the pain was more intense, 6/10 compared to 8/10. Group 1 lacked compliance to the therapy, accomplishing only 60% of the proposed repetitions. Group 2 showed no resistance at all. At the 4-month mark, group 2 has again performed better than group 1: mobility increased by 90° (the goal after 6 months of therapy) compared to 50°; little intensity pain (3/10) compared to a pain felt more strongly (5/10). The compliance of group 1 increased with the gradual ceasing of the pain. **Conclusions:** The sportsmen have reached recovery much faster than the other group, even faster than the average duration reported for this intervention. They were also more compliant with the process of physiotherapy, boosting the recovery time.

Keywords: Ligamentoplasty, ACL, physiotherapy, professional sportsmen

NURSES

ACUTE RENAL FAILURE, A LIFE-THREATING COMPLICATION OF RHABDOMYOLYSIS

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Background: Rhabdomyolysis can be caused by injury or any other condition that affects the skeletal muscle. This condition includes the disintegration of the striated muscles, which results in the release of muscle cell content into the extracellular fluid. It is a rare condition, but with a very high degree of acute kidney injury. **Objective:** The study is retrospective, cohort type (2017-2020) and identifies 40 cases of patients with rhabdomyolysis, aged 22-95 years, presented to UPU-SMURD Târgu-Mureş. Rhabdomyolysis was defined by the value of serum creatine kinase(CK) with value over 1000 U/L, which is about 6 times higher than the higher value measured by the laboratory (170 U/L). In the study were excluded cases such as acute myocardial infarction, stroke, chronic kidney failure, or dialyzed patients. The investigated clinical factor was acute renal failure(ARF) and the CK value.

Material and methods: The following laboratory parameters were included in the analyzes: serum CK concentration, myoglobin, creatinine, calcium concentration, pH and bicarbonate value. The groups were classified according to the presence or absence of ARF, and also the need for hemodialysis or any other form of renal replacement therapy in patients with ARF. **Results:** The main cause of rhabdomyolysis was trauma (37,5%), chronic ethylism (15%) and hypothermia(15%). 13 cases were diagnosed with ARF, which represents a percentage of 32.5% (the vast majority being men, 61,53%). With this diagnosis, 8 patients required admission to the nephrology clinic for hemodialysis (61,53%), with equal percentage distributed by sex (50%). **Conclusions:** The result of the average CK value is 19230 U/L, this being calculated for all cases and 32650 U/L for patients diagnosed with ARF. Prompt and early diagnosis is essential followed by the introduction of therapy that helps maintain kidney function and urine output. Extension of extracellular volume is an essential element of treatment and should be initiated as soon as possible. Severe forms may require a multidisciplinary approach.

Keywords: rhabdomyolysis, acute renal failure, creatine kinase, nephrology

DIAGNOSIS AND TREATMENT PRINCIPLES IN MENISCUS LESIONS

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Background: The knee is one of the most important and solicited articulations, due to its superficial positioning and weak sustaining from the muscles. The menisci are well anchored but despite these facts there are a lot of meniscus lesions. In 2006, approximately 130.000 patients were proposed for meniscectomy and 35.000 for lesions of the cruciate ligaments. Meniscus lesions mostly appear at athletes out of all the sportsmen.(15%)

Objective: The objective of the study is to observe the difference in frequencies between traumatic and degenerative lesions, alongside the frequency of associated lesions on a series of arthroscopic cases from the Orthopedics I section from The Clinical County Hospital of Târgu Mureş. **Material and methods:** This study has a retrospective transversal observational character, analyzing a series of patients from 2014 to February 2020 from the up-mentioned section. The data was collected from the observation files and discharge tickets, without having any contact with the patients. **Results:** There were 210 patients, from which only 147 met the criteria to be included in the study. It can be observed that the lesions of the internal meniscus represent 79%, of the external meniscus 13% and the lesions which include both of the menisci represent only 8%. Out of these 82% were traumatic (120 cases) and 18% were degenerative (27 cases). As treatment there were 50 meniscectomies (34% of the cases), sutures in 42 cases (29%), both methods in 50 cases (34%) or neither of them in 5 cases (3%). As for associated lesions the most of them were represented by cartilaginous lesions in 29% of the cases (42 patients), followed by ACL combined with cartilaginous lesions in 25% of the cases (35 patients). **Conclusions:** The most frequent meniscus lesions are traumatic and take place on the internal meniscus and the most common associated lesions are the ACL lesion and the cartilaginous lesions.

Keywords: meniscus, meniscectomy, meniscus lesions

PRECLINICAL DENTAL MEDICINE

THE BEHAVIOR OF AESTHETIC RESTORATION MATERIALS UNDER EXTREME CONDITIONS: IN VITRO STUDY

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Background: The aesthetic-materials of direct restoration can suffer changes in the oral cavity due to multiple factors acting at this level. **Objective:** Demonstration of the hypothesis that aesthetic materials undergo structural changes in texture and chemicals, depending on the nature of the extrinsic factor, concentration and exposure time. **Material and methods:** We used 3 types of composite, one self-polymerizing macrofill composite, two photopolymerizable composites with respective nano-filler and one glass-ionomer. We made 210 composite-teeth that were initially immersed in artificial saliva as a control solution and after that was introduced into artificial gastric juice, ethyl alcohol, energy drink and distilled water. With a pH-meter we determined the pH of the substances both before and after introducing the teeth in solutions. The teeth were monitored 24-48 hours, and during the procedure they were in a thermostat bath at 37 degrees, after which they were analyzed with a rough-meter that measures the smallest surface changes. **Results:** Following the test, significant changes in pH occurred in alcohol, where a considerable decrease was observed after 48h. Also, the alcohol produces the most aggressive changes of texture in the composites with macrofiller where we had a maximum roughness of 14.018 RA 0.8x2, and the smallest changes occur in the composite with micro-filler with a minimum roughness of 1.336 RA 0.8x2. The glass-ionomer was the most affected of all the materials due to the exposure to both alcohol and artificial gastric juice, respectively energy drinks, so that the surface analysis could not be performed. **Conclusions:** The results of the in vitro study are important clinically because the glass-ionomer is much too rotten in these extreme situations. Thus, its use is not recommended neither in patients with gastro-oesophageal reflux nor in alcoholics and people consuming energy drinks. It is recommended to replace it with a micro- or nano-filling composite.

Keywords: aesthetic-materials, roughness, pH, resistance

THE CHEWING GUM PROJECT-EVALUATION OF GUM'S EFFICIENCY IN THE REMOVAL OF BACTERIAL PLAQUE IN CHILDREN

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Background: Children and young adults tend to neglect the importance of oral hygiene and tooth brushing. During the day, the consumption of junk food (soft and sticky) and fizzy drinks (constantly lowering the saliva pH) aggravate their hygiene status. **Objective:** The objective of the study was to assess the utility of chewing gum usage, as a supplementary way of oral hygiene in plaque removal, in lowering the overall bacterial load and thus helping in hygiene maintenance throughout the day. **Material and methods:** The study was supported by the Company Wrigley (Orbit)- Echipa Mars, providing a sufficient number of chewing gums and educational booklets. The study included 27 children from a nearby primary school (Scoala Europa). First, they chew a disclosing tablet (2 min) to color possible bacterial plaque, then chew a gum (10 min). Photos were taken in each step and interpreted with ImageJ software by color density ratio (CDR). The remaining plaque was cleaned by professional brushing. The used gums were collected in two ways: 15 in tubes containing 5ml NaCl 0,9%, 12 without any solution; later processed in the laboratory, in order to assess the number/diversity of bacteria (blood agar) and yeasts (on Sabouraud agar). **Results:** Sabouraud cultures were negative, while blood agar showed bacterial growth, indicating that chewing gum is capable of trapping bacteria. The bacterial species were part of the saprophytic oral microflora. Both ways of transportation (+/- NaCl 0,9%) are suitable for research. The CDR in the before and after gum chewing was considerably different, indicating the positive effect of the gum. **Conclusions:** It was confirmed that chewing gum can be considered an effective auxiliary mean of oral hygiene, especially when tooth brushing is not applicable on the spot, however not replacing the usual methods of hygiene.

Keywords: bacterial plaque, chewing gum, school-aged kids

ANATOMIC VARIATIONS AND ATYPICAL ASPECTS WITHIN DENTAL MORPHOLOGY

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Background: The form and structure of permanent teeth represents a very captivating aspect of dental medicine, having the capacity to surprise the doctor several times and, at the same time, to influence the treatment plan approach method. **Objective:** Within this study we have tried to demonstrate the existence of various anatomical particularities when it comes to permanent teeth, as well as the frequency of morphological changes regarding molar teeth and the appearance of some strange occurrences that can influence dental structure resistance. **Material and methods:** Using the dental impressions we have managed to identify some unusual and surprising morphological aspects. The conceiving and the work involved within this study started by underlining these particularities using the clinical examination of the patients, checking the occlusion involved in the mandibular coordination movements, analysing the study models and taking intra-oral photos. The modifications were observed predominantly at the coronal level but there were cases when there were some modifications at the pulp chamber or some developments of over numbered roots identified using X-ray methods. **Results:** As a conclusive response it has been registered that after having worked with a number of 136 student-subjects, we have identified 7 atypical aspects concerning morphology, the modification of the first and second molar forms both at the superior and the inferior arches. These variations in form highlight the modification of the aspect and the report of the molar cusps, as well as the development of some unusually generated forms, exclusively made of enamel, that influence the dental structure through mineralising faults. **Conclusions:** Generating attention towards the morphological aspect of teeth in general can help us in establishing the precise treatment plan, in realising restorations that would not destabilise any occlusion within the mandibular cinematic and, likewise, provide us help when establishing the prognosis regarding the treatment for the certain clinical situation.

Keywords: morphological aspects, dental structure, permanent teeth

NEW DIDACTIC MODEL: INNOVATION AND RESTART

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Background: The didactic-models aim is to facilitate the educational process of the student. Maneuvers such as: dental-impressions, anesthetic, reproduction of the peculiarities of the edentulous areas, should be observed and practiced on the didactic-models. The didactic-models we have available are made of acrylate, that is the reason why some maneuvers are difficult to be practiced. **Objective:** The didactic-models we have on the market are made of hard materials like acrylate covered with silicon and they render only the soft tissue of the oral cavity to the edentulous patient. That is the reason why we made this didactic-models, which mimics edentulous areas and render the resilient of the prosthetic field. **Material and methods:** In the dental technique laboratory of the University of Medicine, Pharmacy, Sciences and Technology „G.E. Palade" from Tg-Mureş we have developed bimaxillary edentulous didactic-models: made from silicone, with plaster or acrylate base. We used materials existing in the dental-technique laboratory: duplicate-silicones, sealants, plaster and conformers. We have designed our own, original method of creating a model that reproduces the resilient mucosa of the edentate. We obtained didactic-models with the plaster base, respectively the self-curing acrylate base. Through a relatively simple technique, we obtained five types of total edentulous models. We demonstrated applying the prosthesis and other specific procedures for the total edentulous patients. **Results:** After numerous attempts, we got to the optimal formula and proportion of the materials and the sequence of their application. So we got the optimal didactic-model, which reproduce with good accuracy the soft parts of the oral-cavity. **Conclusions:** The didactic-models of the total edentulous, that reproduce the resilience of the mucosa are unique and we want to prove their usefulness not only within the technology of dental prostheses but also in the preclinical stages during the learning period.

Keywords: models, didactic, edentulous, learning

LIGHT-CURING: EFFECTS AND DEFECTS

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Background: Achieving the optimal properties of the aesthetic filling materials is dependant on the quality and the correct protocol of the light curing process. **Objective:** The demonstration of the efficiency of the light curing process through physical and chemical tests as well as the negative effects of different light curing protocols on filling material characteristics. **Material and methods:** The in Vitro evaluation, of the light curing depth efficiency for four different types of composite materials (one bulk) and one Glassionomere cement from a illumination, thickness and type of material point of view. The efficiency of the light curing process was determined trough chemical and physical manners, as well as undergoing a scratch test. With a temperature sensor, the thermic effect of the light curing lamp was determined, by estimating the value of the rising temperature, corelated to the type of lamp, the working time as well as the type and thickness of the restorative material. **Results:** A longer light curing exposure time, has very little to no effect on the depth of the polymerisation. The thickness of the light-cured material is between 2 - 2,5mm, and by increasing the exposure time by 1 - 2 minutes, will not produce a larger light curing effect. The light-curing depth and efficiency is dependant on the distance of the light source. The light-curing depth decreases significantelly with the increasing distance. There is a 6-21°C temperature rise during the process, confinding not only on the type of lamp, but also on the restorative material. **Conclusions:** The application of the simple methods and evoding the causes which can lead to defects, in order to minimize the negative effects of the light-curing process, as well as refiting the tehniqye according to the parameters of the lamp, type and thickness of the material, as well as its position.

Keywords: light-curing, Effects, Defect, Aesthetic-Material

CLINICAL DENTAL MEDICINE

THE COMPLEXITY OF INCLUSION OF THE LOWER WISDOM TOOTH, THE ODONTECTOMY AND THE POSTOPERATIVE HEALING

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Background: Dental inclusion is a pathological situation where a tooth is retained at the bone level over the physiological period of eruption and has no tendency or possibility to erupt. Dental inclusion can disrupt the functionality of the neighboring teeth, affecting the bone and surrounding tissues, and is most commonly found in the molars three, especially at the mandibular level. **Objective:** The purpose of the study was to establish the factors that influence the difficulty of the odontectomy by clinical and radiological analysis of the mandibular third molar. **Material and methods:** The study was based on a questionnaire that included a total of 11 questions related to the preoperative clinical and imaging analysis of the included molars, referring to the classification of inclusion, after Pell and Gregory, Peterson, but also to the reason for practicing the odontectomy and postoperative evolution. It was distributed in the Clinic of Surgery OMF Târgu Mureş to all the doctors who performed the extraction at the mandibular level, being analyzed so far 15 questionnaires, the study is in progress. **Results:** The questionnaires were completed by resident doctors with an experience between 1 and 5 years. Analyzing the obtained results, we find a level of difficulty slightly to moderate in 40% of cases. The most common position is mesioangular (53.3%). As regards the relationships with the surrounding tissues, we have a high frequency of class I, class C, distance from the mandibular canal, contact with the second molar, convergent root morphology, partial bone inclusion associated with the degree of difficulty and a high importance of suturing, mainly with non-absorbable material-silk. **Conclusions:** Preoperative radiographic evaluation of dental inclusions, their inclusion in international classifications, is essential and adds value in the approach of the odontectomy.

Keywords: odontectomy, complexity, inclusion

THE PERCEPTION OF MOBILE APPLIANCES USERS ON THE CHANGES BROUGHT TO THEIR LIFESTYLE

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Background: Dento-maxilares anomalies can cause severe three-dimensional disorders of the dental arches and implicitly of dental occlusion, interfering with the harmonious development of the physiological dentition, so is necessary to treat the anomalies as soon is possible. The earlier the age of intervention, the higher the success of an orthodontic treatment, having the possibility of guiding the remaining growth, of controlling the dental eruption and permutation, of correcting bad habits by removable or fixed appliances. **Objective:** The authors have done an evaluation of the oral hygiene practices of patients undergoing mobile orthodontic therapy and the impact on their diet and lifestyle in general. **Material and methods:** A questionnaire with 14 questions has been distributed to a number of 63 patients undergoing the active stage of the orthodontic treatment with mobile appliances at the Orthodontic Department in UMFST Targu Mureş. Children aged up to 10 years old have been helped by their parents to fill out this survey, and older children filled out the survey on their own. **Results:** Most of the respondents have understood the importance of the dental appliance hygiene and teeth hygiene, and then almost in equal shares they have understood also, the importance of diet and of auxiliary means of hygiene. Majority of children (high percentage of the patients 80%), have indicated that the orthodontic treatment will benefit them an improved esthetic aspect and healthy teeth. They also noticed the importance of the dental appliance hygiene and teeth hygiene, and then have understood , the importance of diet and of auxiliary means of hygiene. (89%) **Conclusions:** There is an obvious tendency of increased desire for an orthodontic therapy within the analyzed population, most of the patients being aware of the role and need to wear an orthodontic appliance.

Keywords: orthodontic treatment, bad habits, oral hygiene, appliances

COMPARATIVE ASSESSMENT OF PULL-OUT RESISTANCE ON DIFFERENT LUTING CEMENTS: IN VITRO STUDY.

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Background: This study was conducted to evaluate the resistance strength between three different intraradicular posts. **Objective:** Our main purpose was to measure and compare the pull-out resistance strength between anatomical posts and conventional posts with rough and glossy surfaces, using four different types of cement. **Material and methods:** Seventy single-rooted human teeth with post space prepared after endodontic treatment were divided into seven groups (n=10). Cast posts with blasted surfaces were cemented with three types of cement: (I) glass ionomer cement, (II) resin-modified glass-ionomer cement, (III) zinc phosphate cement. Cast posts with glossy surfaces were cemented with two types of cement: (IV) glass ionomer cement, (V) resin-modified glass-ionomer cement. For anatomical posts we had used: (VI) glass ionomer cement and (VII) dual resin cement. The pull-out bond strength of the cement was measured at a crosshead speed of 0.5mm/min with a universal testing machine which registered all the values in Newton and provided a graph. The mean of each group was performed by using multivariate analysis. A tactical device was designed to hold the root in a neutral position, which allowed disinsertion of the post in sense of his insertion and a special design we had chosen for posts to avoiding interference with other forces in the process of disengagement. **Results:** In case of metal pivots with sandblasted surface, resin-modified glass ionomer cement offered a significantly higher strength compared to the conventional glass ionomer cement. Zinc phosphate cement has shown a bond strength similar to resin-modified glass ionomer cement. **Conclusions:** The traction force was higher for cast metal posts with blasted surfaces compared to the smooth ones. Chemical adhesion of resin-modified glass ionomer cement gives similar results as mechanical retention in case of custom cast posts with rough surface.

Keywords: traction-force, adhesion, rough-smooth surface, cements

CLINICAL STUDY ON THE EFFICIENCY OF GLASS CARBOMERS USED AS SEALING MATERIAL

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Background: One of the newest sealing materials is Glass Carbomer ,developed from traditional glass-ionomer cement , but with better mechanical and chemical properties. **Objective:** The objective of our study was to investigate the retention of Glass Carbomer fissure sealant and the incidence of secondary caries after 6, 12 ,18 and 24 months, in comparison to a conventional resin-based sealant. **Material and methods:** The study was conducted on 32 childrens over a period of 24 months.The sealant was applied to all four,integral first molars of each child.In total, 128 molars were sealed, 64 with conventional resin-based sealant ,Helioseal, and 64 with Glass Carbomer. We evaluated the retention of the material and caries incidence after 6 , 12 , 18 and 24 months. **Results:** At 6 months,there was no significant differences between Glass Carbomer and Helioseal, regarding sealant retention and new carious lesions. At 12 ,18 and 24 months there was a highly significant difference between Glass Carbomer and conventional resin-based sealant retention, the retention rate of Helioseal is significantly higher (after 24 months complete sealant retentions were 73% for Helioseal, and only 35% for Glass Carbomer). Regarding to prevalence of dental caries, we did not find statistically significant differences between the two materials, in any of the evaluations made. **Conclusions:** The retention of the Glass Carbomer was lower than the retention of the Composite resin, but both were effective in preventing tooth decay.

Keywords: GlassCarbomer, Sealant, retention, tooth decay

SKELETAL ANCHORAGE, THE PARADIGM IN MODERN ORTHODONTICS!

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Background: Mini implant systems have become a popular concept in orthodontics over the past years and methods have been developed to create absolute skeletal anchorage. A familiar concern during orthodontic treatment is to control Newton's third law, the law of action and reaction. **Objective:** The goal is to illustrate the planning process of the interdisciplinary team and formulate realistic treatment objectives to ensure the quality of the final result through absolute skeletal anchorage systems. **Material and methods:** Malocclusions to be illustrated in multiple case reports such as maxillary molar distalization needed for nonextraction treatment of dental Class II malocclusions, severe dental crowding, bialveolar protrusion, molar extrusion, group protrusion, uprighting, midline shift, compromised periodontal status of anterior/posterior teeth, deep and open bite malocclusion or maxillary constriction in adults patients. The insertion of an orthodontic miniscrew for anchorage purposes is considered minimally invasive. **Results:** Following the orthodontic treatment, the key points were the bone quality, insertion torque, miniscrews design, appropriate biomechanics, distance to the roots, orthodontist skills and imagination, proper site limits had been established and the final position of the dental implants or prosthetic rehabilitations had become a success. With temporary skeletal anchorage devices the maxillary molars were moved distally (they had a force of activation of 4.5 mm: at the crown 3.2 mm and 3.5 mm at root level with distal tipping 10 degrees, 3 mm space gaining and intrusion of molars by 1.9 mm), the mandibular molars were upright and moved mesially 6 mm without unwanted incisor tipping and the occlusal plane was also leveled. **Conclusions:** The combination of orthodontic treatment and TADs proved to have greater results for the patients with an interdisciplinary team approach. The combination of well-planned treatment, successful management and precise execution of the mechanics plan resulted in good esthetics and occlusion.

Keywords: orthodontics, mini screws, orthognathic surgery, interdisciplinary treatment

BONE METABOLISM IN OSSEOINTEGRATION OF DENTAL IMPLANTS

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Background: Osseointegration is key to success in implantology. Vitamin D, High-density lipoprotein cholesterol, Low-density lipoprotein cholesterol are directly involved in the biology and metabolism of bone healing around a dental implant, through modifying the biological bone response. **Objective:** The purpose of this study is to investigate the vitamin D deficiency and high level of low-density lipoprotein cholesterol and total cholesterol, considered to be risk factors in dental implant osseointegration. **Material and methods:** All the patients who had been treated with dental implants, were previously requested blood tests of vitamin D3, HDL, LDL. The results of 25-hydroxy vitamin D3, HDL cholesterol, LDL cholesterol were analysed and compared to the normal values and the primary stability during the dental implant procedure. **Results:** Out of a total of 20 patients, 8 are males and 12 females, with a mean age of 45.05 years; 9 smokers and 11 non-smokers; none of them was reported with a satisfactorily high level of vitamin D in the blood. The number of dental implants placed was 79 (both in the maxilla and mandible) with the primary stability set over 30 N/cm. Maximum LDL value was 242,6 mg/dL. **Conclusions:** Within the limits of the present study, it is concluded that all patients who are an appropriate candidate for dental implants require blood tests for 25-hydroxy vitamin D3, HDL cholesterol, LDL cholesterol to be done, in order to establish if there are any deficiencies. Correcting these for a good dental implant osseointegration is recommended.

Keywords: vitamin D, HDL, LDL, osseointegration

ENAMEL DISCOLORATION AFTER FIXED ORTHODONTIC TREATMENT

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Background: After orthodontic treatment, dental color changes may occur such as white spot lesions, which have a varied etiology: type of material used for bonding, oral hygiene of the patient during the orthodontic treatment. **Objective:** The aim of our study is to compare the teeth discoloration caused by three different adhesive material used by brackets bonding. **Material and methods:** The study was performed by 30 extracted teeth divided in three groups. The first group was with classical method: etching and Reliance composite, the second group with Transbond paste and the third one Opal composite, which fluoride. Teeth were cleaned and brushed. We examined the enamel surface before and after bracket debonding. The color parameters were measured using the Spectrophotometer, which way we can see the color parameters like a point with three coordinates. The coordinates are: L*-the brightness-black=0 and white=100; a*-represents the parameter of the chromatic on the red-green axis, and b*-represents the parameter the yellow-blue axis. We calculate and afterwards their average was calculated the chrome C*. (ΔE), using the formula $\Delta E = \sqrt{\Delta L^{*2} + \Delta a^{*2} + \Delta b^{*2}}$. Data were statistically analyzed using SPSS 22.0 software **Results:** The level of value ΔE before bonding was between 1.75 ± 0.5 , that is considered to be acceptable. The color was changed with the highest value after the bonding in each group. The highest values 4.65 ± 0.5 was observed in the first group, the Reliance group by increase of the ΔE values caused by the fluoride. The second group, Transbond showed an acceptable clinical change after debonding (1.85 ± 1.54). The use of fluoride in the adhesive material had a major reason to inhibit its decalcification, but it could determined color alterations. The third group represented by Opal showed a ΔE values between 2.45 ± 1.44 . **Conclusions:** TransBond represent the gold standard in orthodontic bonding, which has a good adhesion power and less discoloration.

Keywords: discoloration, orthodontic treatment, fluoride release

EVOLUTIONARY HYPODONTIA: MYTH OR FACTS? AN ORTHODONTIC APPROACH.

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Background: Dento-maxillary anomalies represent a specific field of dental pathology because they are developmental disorders of the dento-maxillary apparatus. Over time, the reduction of the teeth number has been appreciated from a phylogenetic, ontogenic and genetic point of view. **Objective:** The purpose of the study is to establish the prevalence and distribution of non-syndromic hypodontia in patients treated in Pedodontics and Orthodontics Department UMFST George Emil Palade Târgu Mureş. **Material and methods:** There were 300 files of patients which needed orthodontic treatment in Pedodontics and Orthodontics department of UMFST George Emil Palade Târgu Mureş and in two private offices, between 2012-2017. The age of the patients varied between 12 and 25 in the moment when the clinical and paraclinical examinations took place. The study material is represented by the files of the patients which contains personal data, family history, personal history, extraoral examination, intraoral examination, radiographic examination and study models. The diagnosis of hypodontia was made based on the radiographic examination in collaboration with patient's file and the study model examination. The statistical processing of data consisted of operation of centralization, ordering, grouping and representation of the data in the form of series, tables and graphs. **Results:** From the total number of 300 investigated cases, 78 patients were diagnosed with hypodontia in permanent dentition with exception of the third molar. Reported to the entire sample, the rate of hypodontia is 26% for the patients who needed orthodontic treatment. **Conclusions:** The rate of hypodontia in permanent dentition in patients who needed orthodontic treatment is 26%, higher than the data found in literature in our country but falls within the range reported in the international literature.

Keywords: dento maxillary anomalies, hypodontia, orthodontic treatment

THE INFLUENCE OF CHLORHEXIDINE GLUCONATE RELEASE ON THE PREDICTIBILITY OF THE PERIODONTAL THERAPY.

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Background: Chlorhexidine gluconate (CHG) is an extremely effective antiseptic and disinfectant with multiple medical applications. CHG can be successfully associated with periodontal therapy to increase predictability of outcomes. **Objective:** CHG is available in multiple forms of presentation, but the main problem of its use is the limited time of action at the periodontal structures. **Material and methods:** To carry out the present study we selected a batch of 30 patients with periodontal disease and at least one site whose depth at the survey was at least 5 mm. An initial periodontal evaluation was performed recording depth at survey (PD) and PBI. Patients included in the study were randomly and evenly divided into three groups A, B, and C. Patients included in group A benefited from over- and subgingival de-scaling and root surfacing (SRP) without application of post-treatment CHG. For patients in group B SRP was performed and CHG topical was applied in the form of Glucosite Gel (Cerkamed). At the level of Group C, SRP was performed and in the bags with a depth of at least 5 mm, CHG was applied as PerioChip (Dexcel). The evaluation of the results was done after 30 days. **Results:** The study showed that for all three types of treatment the PD values recorded post-treatment were significantly lower compared to the initial values. **Conclusions:** CHG is a real and viable adjuvant to SRP therapy, but its slow release in periodontal pockets significantly increases the predictability of the treatment.

Keywords: Chlorhexidine gluconate, Periodontal therapy, Antiseptic

THE ROLE OF PHYSIOLOGICAL DIASTEMAS TO MANAGE THE SPACE ON THE ARCHES

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Background: This topic has aroused the interest of many orthodontic specialists over time. The diastemization process and the role it plays in manage the space on the arches is still in progress. **Objective:** The aim of this study is physiological space analysis provided by the diastema on the study casts in order to predict the normal growth and a harmonious dental permutation, with the essential space in order to align the permanent teeth. **Material and methods:** The study group consisted of 128 study casts of subjects from urban areas and 64 study casts of children from the countryside. All selected patients were 4-6 years old, had all teeth present, without proximal decays and without prior orthodontic treatment. The following parameters were measured: the presence/absence of the diastema, the presence/absence of the primate space. The coding of the information for the statistical analysis were the following: 0=presence of space in the upper and lower arches; 1=space only in the upper arch; 2=space only in the lower arch; 3=lack of space. **Results:** A large number of dental casts (84, 43,75%) showed a lack of contact points in both arches, while 56 casts (29,16%) showed space in the upper arches, while 34 casts (17,7%) showed spaces in the lower arches, while 18 casts (9,37%) had no detectable space between the temporary teeth in the frontal/lateral area. The analysis regarding the origin and gender of the casts showed a higher frequency of this process in women that lived in the countryside. **Conclusions:** The diastemization is a physiological process, that is present in an increased percentage in the mixed dentition, more often in the countryside and in the female gender. The lack of this space can be a predictive factor for Dento Maxillary Disharmony caused by dental crowding and keeping under observation these cases is a mean of prevention in Orthodontics.

Keywords: midline diastema, primate space, primary dentition, dental permutation

PHARMACY

GOLD NANOPARTICLES: NEW CANCER THERAPY STRATEGIES

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Background: In the last decade, globally the cancer is the second leading cause of death. For this reason, to solve this problem, scientists are permanently working to develop new drugs which helps us to hope that we can reduce the incidence of mortality. Oncological researches has shown that one of the modalities for the cancers therapy can be based on nanomaterials, more precisely, the gold nanoparticles are recently emerged as promising agents. **Objective:** In recent years, gold has gained the attention as potential for the treatment of various diseases, such as cancer, but it is very important to notice the properties that open this path. **Material and methods:** The review of scientific literature available on ScienceDirect, Natura Outlook, using as keywords: "gold", "gold nanoparticles", "cancer therapy". **Results:** The unique properties of NPs like small size, biocompatibility, bioavailability of entrapped drugs and easy interactions with other molecules, ligands or antibiotics, make them suitable for use in biomedical applications like diagnosis, therapeutics, imaging and site-specific delivery of drug. The gold nanoparticles have special interactions with other drugs, forming covalent bonds. Still, the most important property of these NPs are represented by Surface Plasmon Resonance (SPR), which means that the free electrons inside the NPs, at the correct wavelength of light, can be forced to oscillate at the same frequency and turn the AuNPs into a precise cancer killer. But it is also known that AuNPs have antibodies attached to their surfaces, that selectively bind only to the tumor cells and not at healthy cells. After accumulation in the tumor cell, the infrared light is used to induce the electrons to oscillate, forming a high temperature in the environment of the cell, causing its destruction. **Conclusions:** Based on their properties, the potential of gold nanoparticles could be unlocked, hoping they will be able in the future, to treat cancer.

Keywords: gold nanoparticles, cancer therapy, surface plasmon resonance

DEVELOPMENT AND EVALUATION OF DROTAVERINE SUPPOSITORIES

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Background: Currently, in Romania are found pharmaceutical formulations containing drotaverine (which exerts an antispasmodic effect) that can only be administered orally or by injection. The rectal administration has been considered due to the improvements in drug bio availability, by developing suppositories using three different lipophilic suppository bases. **Objective:** The aim of the study was developing suppositories containing 40 mg of drotaverine, suspended in modern bases composed of semi-synthetic glycerides. Some advantages of these bases are the following: significant volume contraction, good emulsifying properties, oxidation resistance, small temperature difference between melting point and solidification point and good storage stability. **Material and methods:** The suppositories were cast in molds for adults. Rectal suppositories were prepared each of them with 40 mg of drotaverine using 3 different types of lipophilic bases: Lipex(S1), Suppocire(S2), Witepsol(S3). The average mass was calculated using 20 suppositories. Breaking strength, disintegration and softening time of the suppositories were determined. A UV-VIS spectrophotometry method was used to assess the quantity of drotaverine found in a suppository. **Results:** All the suppositories were coloured pale yellow and did not present any cracks or fissures. The average mass was between 1.9532 and 1.9786 g. The mean content for the formulations was: 42.52 mg for S1, 40.76 mg for S2, 42.92 mg for S3. The disintegration time increased from S1 (5 minutes and 50 seconds) to S3 (8 minutes and 50 seconds). The largest softening time was in the case of S3 formulation. **Conclusions:** Lipophilic-type drotaverine suppositories were successfully prepared and characterized. For all formulations of suppositories, the physical parameters are in the permissible range. The disintegration time was less than 30 minutes for each one of the formulations obtained as required by the 10th Edition of Romanian Pharmacopoeia. The quantity of drotaverine for each formulation was within the admitted limits which are $\pm 7,5\%$, meaning ± 3 mg.

Keywords: suppositories, disintegration, drotaverine, UV-VIS spectrophotometry

VENLAFAXINE ENANTIOSEPARATION BY CAPILLARY ELECTROPHORESIS USING CYCLODEXTRINS AS CHIRAL SELECTORS AND EXPERIMENTAL DESIGN METHOD OPTIMIZATION

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Background: Depression is a common and serious medical condition which affects approximately 10% of people during their lifetime. Venlafaxine (VFX) is one of the most frequently prescribed antidepressants from the serotonin and norepinephrine reuptake inhibitor (SNRI) class. It is chiral substance and is used in therapy as a racemate. The differences between the pharmacological profiles of the enantiomers are well established, as S-VFX is a selective serotonin reuptake inhibitor while R-VFX is serotonin and norepinephrine reuptake inhibitor. **Objective:** The aim of the research project was the development of a new capillary electrophoresis (CE) method for the enantiomer determination of VFX enantiomers using cyclodextrins (CDs) as chiral selectors. **Material and methods:** CE was chosen as method of separation based on several advantages related to short analysis time, high separation efficiency, low consumption of reagents and analytes. The most frequently employed chiral selectors in CE are CD derivatives (native and derivatized, neutral and ionized). **Results:** After an initial CD screening, CM- β -CD was chosen as optimal chiral selector at an acidic pH of 2.5. An initial one factor at time (OFAT) was employed to select the significant analytical parameters followed by face centered composite design (FCCD) for optimization. The performances of the analytical method were verified, and the method was applied for the determination of VFX enantiomeric ratio from pharmaceutical preparations. Using the optimized conditions, we obtained the chiral resolution of the enantiomers in approximately 6 minutes with a resolution of over 1.50. **Conclusions:** CE proved to be a reliable method for the chiral separation of VFX enantiomers and can be used successfully in the preliminary chiral analysis of the compound.

Keywords: venlafaxine, chiral separation, capillary electrophoresis, experimental design

METAL COMPLEXATION OF DOXYCYCLINE INVESTIGATED THROUGH UV-VIS SPECTROSCOPY AND THIN LAYER CHROMATOGRAPHY

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Background: The pharmacological properties of tetracyclines are strongly influenced by the presence of metal ions. Electron-donor functional groups as phenolic β -diketone moieties, enol hydroxyls, carboxamide and dimethylamino are involved in the metal complexation. Doxycycline is less affected by metal ions due to the lack of C6 hydroxyl. Thereby, the doxycycline's capacity for forming chelates is unclear, whereas some guides recommend avoiding co-administration of supplements with metal ions. **Objective:** This study investigates the ability of doxycycline to complex with several metal ions like Ca^{2+} , Mg^{2+} , Fe^{2+} , Fe^{3+} , Al^{3+} , Zn^{2+} , Cu^{2+} and Co^{2+} through a UV-VIS spectrophotometric and a thin layer chromatography (TLC) method. **Material and methods:** The UV spectra of doxycycline were recorded in the presence of metal ions in different molar ratios of concentration (solvent methanol:water 1:1). Three suitable mobile phases have been selected from reported scientific papers: acetonitrile:methanol:oxalic acid (1:1:3), methylene chloride:methanol:water (59:35:6), and ethanol:acetic acid:water (3:3:5). For the comparison of results, tetracycline was used in both methods. Detection has been done at 366 and 254 nm. **Results:** The UV spectrum of doxycycline has changed in the presence of Ca^{2+} and Mg^{2+} with a hypochromic effect. Relevant differences were identified in the presence of Fe^{2+} , Fe^{3+} , Co^{2+} , Al^{3+} , Zn^{2+} , depending on the concentration of ligand or metal ion. Hypsochromic, bathochromic, hypochromic, and hyperchromic effects were registered. The TLC study revealed interactions between doxycycline and the metal ions. The R_f values of doxycycline vary in the presence of all eight cations. **Conclusions:** According to results, this study highlighted that doxycycline could interfere with cations in different proportions, depending on the molar ratio and the metal. Whereas the presence of Ca^{2+} and Mg^{2+} had a minor influence on the UV spectrum of doxycycline, other studied cations had a significant impact. Moreover, TLC-method sustains the hypothesis that doxycycline can form complexes with metal ions.

Keywords: doxycycline, UV-spectrophotometry, metal complexes, thin layer chromatography

THE ANALYSIS OF TOTAL POLYPHENOLIC CONTENT AND ANTIOXIDANT ACTIVITY OF DIFFERENT HONEY SAMPLES

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Background: Biochemical properties of honey is strictly connected with its source and consequently with its content in secondary metabolites. Phenolic compounds are the main secondary metabolites in honey that are responsible for the antioxidant activity. **Objective:** The aim of this study was the evaluation of polyphenolic content and antioxidant activity of 22 honey samples commercialized by local beekeepers from Mureș county area and one Manuka honey (Australia). **Material and methods:** Total polyphenolic content of honey was determined by a spectrophotometric micro method with Folin-Ciocalteu reagent. Antioxidant activity was determined using 1,1-diphenyl-2-picrylhydrazyl (DPPH) and 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) (ABTS⁺) radical scavenging assays. One-way analysis of variance (ANOVA) followed by a Tukey-Kramer test was applied to calculate the statistical significance between the various groups. Correlation between polyphenolic content and antioxidant activity was evaluated using Pearson's linear correlation. **Results:** The results of our study showed great variability between the 23 honey samples. Phenolic content ranged from 20.11 to 160.81 mg GAE / 100 g and statistical significant differences were observed ($p < 0.05$). Some samples including Manuka honey showed better antioxidant activity compared to other honey samples. **Conclusions:** A proportional correlation between total polyphenolic content and antioxidant activity of honey has been observed. Based on the results of this *in vitro* study, the honey samples rich in polyphenolic compounds are a great source of potent natural antioxidants.

Keywords: honey, antioxidant activity, total polyphenols

ANTIOXIDANT CAPACITY OF A DAILY FACE CREAM WITH ANTHOCYANINS EXTRACTED FROM BILBERRY

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Background: The pharmaceutical technology is nowadays in a continuous exploration of new dermatological and cosmetics fields and nature is full of opportunities in this direction. Natural compounds have been proved to offer skin protection, but frequently the concentration found in cosmetics is under the therapeutically active concentration. **Objective:** This study aimed to evaluate the antioxidant capacity of a daily face cream with *Vaccinium myrtillus* fruits (bilberry) extract, formulated in the laboratory. **Material and methods:** Two types of macerated vegetal extracts were used: alcoholic and glycerol-alcoholic. The concentration of anthocyanins was determined using a spectrophotometric method and the results were expressed as cyanidin 3-O glucoside. The ingredients used for the cream base formulation were: *Myrtilli fructus recens* alcoholic extract 10%, water, glycerol, cetyl alcohol, cetearyl olivate (emulsifiant), sorbitan olivate (emulsifiant), jojoba oil, shea butter, olive squalane. After the oily and the aqueous phase were heated at approximately 70 degrees, the aqueous phase was added slowly to the oil phase under continuous stirring until the homogeneity was obtained. The *Myrtilli fructus recens* alcoholic 10% extract has been added into the final phase at room temperature. A moisturizing cream base without the extract was used as control. The antioxidant activities of the obtained creams were determined using 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical. **Results:** The results showed that the alcoholic extract has a higher content in anthocyanins than the glycerol-alcoholic extract (0,2182g/100g of herbal drug for alcoholic extract and 0,1876g/100g for glycerol-alcoholic). The radical scavenging activity using DPPH radical revealed a significantly higher antioxidant capacity of the tested cream than the control. The inhibitory capacity was 57,36%. **Conclusions:** The cream obtained by using 10% alcoholic extract of *Myrtilli fructus recens* has a good antioxidant activity. Further research is needed in order to evaluate the stability of the anthocyanins in the formulated cream.

Keywords: Bilberry, anthocyanin, moisturizing cream, antioxidant

MILITARY MEDICINE

COMPARATIVE STUDY OF THE IMMEDIATE POSTOPERATIVE PAIN FOR THE CLASSIC VERSUS LAPAROSCOPIC TYPES OF SURGERY WITHIN THE TREATMENT OF INGUINAL HERNIAS

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Background: The inguinal hernia is the most common type of hernia. It represents the protrusion of the intra-abdominal contents (most frequently omentum or intestine) through a defect of the abdominal wall. Theoretically, any intraperitoneal organ can be found in the hernia sac. The only treatment is the surgical one and if left untreated, severe complications can occur. There are two types of surgical treatment: the classical ("open") surgical procedure or the laparoscopic procedure. Their objective is to remove and treat the hernia sac and repair the muscular defect that appeared in the posterior wall of the groin canal. **Objective:** The purpose of this study is to compare the effectiveness of the two surgery types (classic versus laparoscopic) used in the treatment of inguinal hernias, considering the immediate postoperative pain. **Material and methods:** In order to evaluate the patient's postoperative status, we collected data from the patient history and the clinical evaluation of the pain intensity using the Visual Analogue Scale (VAS) on the first and second postoperative day. This paper will present the case of a 69 years old male patient admitted in the Department of General Surgery II, Emergency Clinical County Hospital of Târgu Mureș, who underwent surgery for left inguinal hernia in 2017 (classical surgery) and for right inguinal hernia in 2019 (laparoscopic surgery). Using the VAS, he self-rated his pain for both types of surgery and for both days with the same pain intensity (2). **Results:** In the treatment of inguinal hernias there was no difference in the efficacy of the type of surgery (classic versus laparoscopic) when talking about the immediate postoperative pain. **Conclusions:** As seen from this paper, taking into consideration the pain aspect, the two surgeries are very similar. In the end, the type of treatment should be chosen by the surgeon after taking into consideration the patient's preferences.

Keywords: INGUINAL HERNIA, SURGERY, CLASSIC, LAPAROSCOPIC

THE ROLE OF THE ROMANIAN ARMY IN NATIONAL AND INTERNATIONAL CIVIL PROTECTION MECHANISMS

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Background: Recently, there has been an increase in non-military exceptional events (massive earthquakes, floods, epidemics) occurring both inside and outside our borders. When the severity of an emergency situation overcomes the logistic capacities of a responding structure, Armed Forces are requested to provide help in the aid of civil protection. This request is done by various mechanisms and is thoroughly regulated by NATO and EU legislation. **Objective:** The objective is to emphasise the connection between the Ministry of National Defence and civil protection mechanisms, and to underline the role it plays in humanitarian aid. **Material and methods:** Available EU and Romanian legislation, Allied Joint Doctrines (AJP3.4, AJMedP-2, etc.), reports from Hybrid CoE and media. **Results:** There are two mechanisms through which the aid of the Army can be requested, depending on the scale of the event. The main pillar of every civil protection mechanism is the National Committee for Emergency Situations, part of the Ministry of Internal Affairs. This department receives solicitations from local authorities and communicates with CIMIC experts within the Emergency Centre of the Ministry of Defence. Thus, the army provides help in various situations. For example, during the 2018 floods the Ministry of Defence prepared 4000 soldiers and 670 technical means. Also, Romanian Army provides medical and non-medical evacuation of multiple casualties in a MASCAL event (MEDEVAC and CASEVAC in the 2015 Colectiv disaster) and UN missions (MINUSMA). The Army plays a crucial role in the EU civil protection mechanism, providing air support (transport, evacuation) and manpower to other nations, based on NATO Article 3 (ex: forest fires in Greece, earthquake in Albania). This mechanism has also been activated for the repatriation of 8 romansians quarantined due to CoVID-19. **Conclusions:** The Romanian Army is tightly connected within national and international humanitarian mechanisms, being a key link in the chain of civil protection.

Keywords: civil protection, the National Committee for Emergency Situations, MASCAL, Romanian Army

IN AND OUT(?). ANALYSIS OF TRAUMA CAUSED BY FIREARM PROJECTILES DURING MILITARY OPERATIONS

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Background: Since their first adoption in the 15th century by the Ottoman Empire's regular infantry, firearms have become the main protagonist in most of the world's conflicts, large or small. Thus, gunshot wounds (GSWs) are one of the leading causes of fatalities among military personnel along with blast injuries and other causes. **Objective:** This paper aims to highlight the types of GSWs in the modern military operations theatres, their possible complications and the means of ballistic protection that are available to today's soldier. **Material and methods:** Documented analyses regarding GSW's in the Afghan theatre are provided by NATO MILMED Department, one of which is the focus of this paper. It includes a report provided by the US Military Joint Theater Trauma Registry which represents a comprehensive account of combat casualty care statistics, distribution of GSWs, and the injury apparatus sustained by all US service members from the 2005-2009 rotation of the Afghan Wars. **Results:** A number of 1,992,232 military servicemen were deployed, out of which 7,877 suffered combat casualties, summing up 29,624 distinct combat wounds. GSWs account for 19,9% of trauma, secondary only to IED-related injuries. The main areas of trauma were the extremities (51.9%), followed by the cervical/head area (28.1%), thorax (9.9%) and abdomen (10,1%). The higher prevalence of GSWs in the extremities is due to the fact that these are the areas least protected by ballistic armour when compared to the other compartments of the body, thus proving it to be an effective means of protection. **Conclusions:** The use of firearms is the main protagonist of modern warfare and thus, GSWs are a priority concern for the military medical system, due to their alarming fatal potential, and numerous complications associated by them, many proving to be crippling for the survivors.

Keywords: NATO, Gunshot Wounds, Ballistic Protection, Operations Statistics

SPINAL COLUMN DISEASES IN MILITARY AVIATORS AND CORRELATION WITH OCCUPATIONAL HAZARDS

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Background: Back pain and spinal column diseases are common chronic health issues that affect military flying personnel, both High-Performance(HP) fighter pilots that underwent enormous G-forces. Many risk factors are responsible for the development of back pains and spinal column diseases, including age, weight sedentarism, and most important, occupational hazards G-force exposure and extreme airframe vibrations. **Objective:** We aim to identify how many of the surveyed aviators suffer from acute/chronic back pain, what are risk factors and habits that may increase the likelihood of developing such conditions, point out the protective measures that are currently taken and what additional protective measures are to be taken in order to reduce back pain, or even completely eliminate the pain. The most important target of this study is to find new countermeasures that will protect the crew and prevent back pain and spinal column diseases **Material and methods:** We anonymously surveyed a total number of 31 aviators o 71st AB Câmpia Turzii, 15 supersonic pilots(HP-aviators) and 16 helicopter pilots. Aviators answered a 20 points questionnaire focused on acute and chronic spinal pain, risk factors and occupational hazards for each type of airframe. Based on an extensive survey and information available about each type of aircraft we matched all relevant demographic and epidemiological factors of each group, in order to asses the total risk of developing acute and chronic back pain. **Results:** A total number of 31 aviators, 15 HP and 16 non-HP were surveyed. 18(58.064%) of them reported spinal symptoms, 11(73.33%) were HP aviators and 7(46.66%) non-HP aviators, most of them reporting lumbar pain after flight activity. **Conclusions:** Back pain, especially lumbar pain, were common in HP pilots and frequently interfered with flying performance but did not appear to influence the long- term morbidity of this relatively young and predominantly male group of aviators.

Keywords: Aerospace Medicine, Military aviators, High G-forces, Occupational hazards

RARE CAUSE OF ANEMIA IN A PATIENT WITH CROHN'S DISEASE

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Background: Crohn's disease is a chronic inflammatory disease, located on the wall of the digestive tract. At inflammatory bowel diseases, the difference between extra-intestinal manifestations and the complications of the disease or treatment must be distinguished. Severe forms of Crohn's disease, with persistent symptoms and complications, require the administration of immunosuppressive or immunomodulatory medication. **Objective:** The purpose of this paper is to report an interesting and complex case of anemia caused by drug therapy in the context of inflammatory disease. **Material and methods:** Patient R.G., 17 years old, known with inflammatory bowel disease, panic attacks, colitis with Clostridium difficile toxin A in case history, comes to the emergency room claiming to be suffering from diffuse abdominal pain, more pronounced on the left side and hypogastric, watery diarrhea, stools with mucus and blood traits, morning nausea without vomiting, weight loss, fever and chills. During the hospitalization period, biological samples were collected for analyzes and thus detected a severe form of anemia, hyposideremia, reactive thrombocytosis and accelerated VSH. Serologically, it was found a Hg value of 6,693g /dl, Htc 26.7% and the Coombs test had a negative result. **Results:** During hospitalization, peripheral smear was performed, the result of which excluded the suspicion of iron deficiency anemia. As the drug treatment included immunosuppression with Imuran, the association with a reversible, dose-dependent suppression of bone marrow function, expressed as anemia, was considered. The suspicion was subsequently confirmed by adjusting the dose of Imuran and adding in the short-term treatment of corticosteroids and long-term immunomodulators, subsequently Hb reaching 9.5 g / dl and Hct 31.02%. **Conclusions:** Correlating diagnosis of anemia, hyposideremia, with the result of peripheral smear and with the restoration of Hb, Htc values after adjusting the dose of Imuran, we can obviously state that anemia was an adverse reaction of drug therapy.

Keywords: Crohn's disease, anemia, immunosuppressive

THE IMPORTANCE FROM A STRATEGIC POINT OF CREATION OF A TECHNOLOGICAL PLATFORM FOR SPECIFIC ANTIDOTES OF CBRN MEDICAL PROTECTION

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Background: The unstable international situation requires the strengthening of national security measures, including in the field of CBRN and public health. Medical countermeasures for defense are based on prophylactic treatment and curative treatment of contaminants and patients. **Objective:** The purpose of the paper is to highlight the strategic necessity of creating a technological platform for specific antidotes for CBRN medical protection, because the existing international concerns force the alignment with the existing situation worldwide. **Material and methods:** Designing and equipping such a platform according to international recommendations, determines that the level of performance of such infrastructure contributes to the worldwide effort of medical protection against biological agents and must have in mind: Medical countermeasures for CBRN defense; previous experience gained; the pharmaceutical laboratory; the conditions and legislation of certification / accreditation / operation. **Results:** The World Health Organization, the European Union and the North Atlantic Treaty Organization recommend concrete measures to reduce these risks and to increase the responsiveness of each country, the alliance and the international community. Military medicine has had and has the conceptual capacity to make antidotes for CBRN medical protection, some have been patented and / or produced as experimental models, but no longer have the production capacity. **Conclusions:** The medical countermeasures for CBRN defense are based on the initial treatment of the contaminants and the patients, and according to the etiological diagnosis, the appropriate treatment is instituted. The realization of a technology platform for microproduction / production of specific antidotes for CBRD medical protection is a strategic necessity for every modern army.

Keywords: medical protection, medical countermeasures, antidote

MATERNO-FETAL COMPLICATIONS AT BIRTH OF THE MINOR PREGNANT

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Background: Birth at the young women (<18 years) from the worldwide is a public health problem and in Romania the phenomenon has also become a social problem. **Objective:** Our study followed the impact of this situation from the perspective of the materno-fetal complications at the minor pregnancies. **Material and methods:** Statistical retrospective study on the assisted births in the clinic OG 1 TGM SCJU TGM during the period 01.01-31.12.2019 for pregnant women under 18 years (minors). From the point of view of the age of the pregnant women, we divided the study group in 2 categories: group 1 (12-14 years) and group 2 (14-18 years). Of the total births (1783), 125 are under 18 years, representing 7%. The parameters followed are parity, gestation, age of the mother, age of pregnancy, weight newborns etc. We collected data from the archive of the Clinic and all data were analysed and interpreted statistically. **Results:** The results of the two groups (group 1 and group 2) are: premature (16%) and mature (84%), cesarean sections (11%) and vaginal delivery (89%). The most important of the maternal complications found by us are: premature rupture of membranes (21%), placental abnormalities (5%), anemia (4%), hypertension (4%). From the 2 groups of newborns: 96% had an Apgar score between 8-10 (1 minute), 98% (5 minutes), 3% between 4-7 (1 minute) and 2% (5 minutes) and 1% (1 minute) Apgar score under 3. Regarding fetal weight, 21% newborns were under 2500g, 76% of them with a weight between 2500-4000 g and 3% newborns overweight (over 4000g). **Conclusions:** Birth rate in minors is increased (7%). The rate of prematurity is increased at the young women under 18 (16%). The most reducible maternal complications are bleeding, placental abnormalities and premature rupture of membranes, and the fetal complications are prematurity and fetal distress.

Keywords: minor, premature, pregnant, complications

MULTIDISCIPLINARITY IN SEPTIC OSTEOARTHRITIS

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Background: Septic osteoarthritis is a difficult to manage pathology, requiring a multidisciplinary team because, without etiologic diagnosis and surgery intervention, has minimal chances for entire recovery. **Objective:** Our presentation aims to demonstrate that multidisciplinary approach is optimal in order to establish a correct and early diagnostic in septic osteoarthritis. **Material and methods:** : A 27-year-old patient with no past medical history, diagnosed in a tertiary hospital with two muscular abscesses (psoas and iliac muscle), empirically treated with antibiotic without clinical improvement, was admitted in Carol Davila Emergency Military Hospital, Infectious Diseases Department on November 5th with fever, chills, left hip pain. Patient have been evaluated by the ID specialist (the leader who decided the entire investigation plan), imagist (who performed a percutaneous periarticular puncture and drainage under ultrasound guidance), surgeon and orthopaedic surgeon (they performed drainage of the collection twice with debridement and lavage) and microbiologist (who confirmed the MSSA infection and the staphylococcus pattern of resistance). **Results:** Due to the multidisciplinary evaluation, ID specialist was able to decide the entire therapeutically approach with a novel antimicrobial therapy after the collection have been evacuated with the best outcome for the patient. **Conclusions:** A young patient without associated pathologies, who developed a severe form of MSSA osteoarthritis, with initially unfavourable evolution under antimicrobial therapy, needed an interdisciplinary collaboration between ID specialist, imagist, surgeon and orthopaedic surgeon, bacteriologist in order to decide the best management of the case.

Keywords: septic osteoarthritis, multidisciplinary team, Military Hospital

THE EVOLUTION OF MILITARY MEDICINE - BETWEEN SACRED AND PROFANE

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Background: Since ancient times, the human race started to become aware of its ephemeral condition on earth and that health need to be preserved. From this point, medicine has evolved steadily, from magic-witchcraft to today's progress. Thus, we considered it necessary to bring back to the attention of those interested, the intrinsic and extrinsic relationship that exists between medical science and spirituality. **Objective:** This paper aims to highlight the interdependence between medical science and religious phenomenon over the centuries. The fundamental idea is shaped by the objective presentation of historical events with a strong impact on the evolution of military medicine. **Material and methods:** The study starts from the information approached in the specialized literature, beginning with: " Medicina militară românească de-a lungul vremii: tradiție-onoare-vocație " - Lt.Col. Cristian-Dorin Damian; " Viața Sfinților " , "Medieval bodies" - Jack Hartnell. Documentation and interpretation of the ideas caught in the cited sources were used as methods of investigating the historical aspect **Results:** Our research is based on the study regarding the war medicine practiced in the Middle Ages (300-1200 AD), as well as the First World War (1914-1918), answering to some obvious situations in the relation between military medicine and religion. Divinity was the pillar on which medicine began to develop as a self-concept by observing the environment and natural events. Religion has continued to influence the evolution of military medicine in both positive and negative aspects, and the way it does today remains an open and equally intriguing topic. **Conclusions:** In the context of the military medicine evolution, there is a continuous symbiosis between the sacred and the profane through the events recorded in history, practically - " Medicus curat, natura sanat " ("The doctor takes care, nature heals"). In fact, these cause a reinvigoration of the relationship between military medicine and sacrality.

Keywords: military medicine, evolution, religion, history

LIFE SAVING TECHNIQUES DEVELOPED IN THE MILITARY ENVIRONMENT AND INTEGRATED IN THE CIVIL PROTOCOLS

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Background: Wars are something very regrettable, yet medicine always had a lot to gain from them. Ever since World War 1 and even to this day, there have been major advances in medicine. The new technology of war developed by the military (machine guns, explosive shells, long-range artillery) forced the medical field to come up with new and better life saving techniques. **Objective:** The aim of this presentation is to highlight the importance of military medicine in the evolution of the civil medical activity. **Material and methods:** We present a review of a few medical advancement made in military context that are now also integrated in civilian medicine protocols. By consulting a wide variety of articles on this issue, we identified some of the most significant innovations in the medical field. Triage, ambulances and blood banks are one of the first groundbreaking innovations that were implemented during war time. Later on, medicine also started to focus on prevention (vaccines). Trauma management, especially haemostasis, is always the main challenge on the battlefield hence a variety of life saving techniques developed such as tourniquets, MAST pants and haemostatic substances (ResQFoam, granules, special dressings). Due to warfare casualties, prosthetic technology has undergone a considerable improvement where robotic prosthetics are now no longer part of the future. **Results:** Military medicine faced up to situations that don't occur outside of warfare (great number of casualties, severe wounds, working under pressure, etc), had to develop new, faster and more time -cost efficient methods. **Conclusions:** It is very convenient that Civilian Medicine has the chance to integrate new procedures so that everyone can benefit from these unfortunate situations.

Keywords: innovations, war, haemostasis, trauma

MENGELE VS ISHII. STATISTICS OF WORLD CRIMES COMMITTED AGAINST HUMANITY FROM DAWN TO DUSK AND IMAPACTS ON RESEARCH.

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Background: The so-called "Big War" took its toll 5 years later on society, letting the planet bereaved, and destroying the destiny of 16 millions people, hence the world confronting with a huge crisis(The Big Crisis of 1929),civil wars, such as the Spanish one, and the Japanese invasion of China(1937). All these events gathered together led to the launching of the WW2. **Objective:** We aim to identify the impact on science of both nipon and german experiments. **Material and methods:** Comparisons between scientific studies, testimonials. **Results:** Aiming at the stimulation of the "superior race", Josef Mengele committed himself to a pseudoscientific research on twins,(mostly between 5-10 years)1500 pairs serving as study material, out of which just 200 survived(13%).Defying the natural course of genetics, he even tried the surgical conjunction.Despite rumours about him being responsible for the high proportion of twins births,10% in Linha Sao Pedro settlement,comparative to 1,8% for the rest of the country,while taking shelter in Brazil, the myth was debunked by the scientist Ursula Matte.She conducted blood tests on 17/22 living pairs of twins, concluding that this fact is due to the high rate of inbreeding, likewise to the number of german immigrants.Things didn't look promising neither in Japan.731 unit was established under the leadership of Chief-Doctor Shirō Ishii,who conducted experiments and produced biological weapons forthe Pacific front.Aproximately 300 kg of cyuma bacteria,600 kg of anthrax bacteria and one ton of cholera bacteria were produced per day, testing the effects of biological weapons, as well as of other experiments on living subjects,entailing the death of circa 400,000 people. **Conclusions:** Mengele's experiments didn't have an impact on science, it rather contributed to fueling the " racial myth".Ishii was co-opted by the americans,and his studies were used for manufacturing future biological bombs, being useful for experiments over decades.

Keywords: Joseph Mengele, Shiro Ishii, WW2 MEDICINE, Biological weapons

EVOLUTIVE AND CLINICAL ASPECTS OF INFLUENZA IN ELDERLY PEOPLE

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Background: Influenza is an infectious respiratory illness caused by influenza virus. Its clinical manifestations include: fever, cold shivers, headache, myalgia, arthralgia, fatigue, nasal congestion. **Objective:** The primary objective of this study is to evaluate the impact of age in the severity of the evolution of influenza in elderly patients its symptoms and complications. **Material and methods:** We conducted a retrospective study including a group of 144 patients diagnosed with influenza of all age groups, admitted to Infectious Diseases Clinic I Targu-Mures, between February 2020 and November 2017. We collected data from the patients' files, regarding demographic characteristics, clinical manifestations, diagnostic procedures, treatment and evolution. The primary outcome measure was the clinical form of influenza in correspondence with the age group. Secondary outcome measures were comorbidities, risk factors, treatment and complications. **Results:** Out of 144 patients diagnosed with influenza, 71 presented severe clinical forms, with respiratory failure. The median age of the group suffering from severe forms of influenza was 50 years, with a minimum of 8 months and a maximum of 91 years. The median age of the group suffering from common form of influenza was 24 years, with a minimum of 1 year and a maximum of 84 years. Severe forms of illness were reported in 81.25% of patients aged over 60 years and only 34.61% in those with age between 18 and 59 years. Among the patients with severe forms of influenza, 69.01% of patients presented comorbidities. **Conclusions:** There is a correlation between age and the increasing severity of influenza. Therefore prevention measures, especially annual vaccination, should be considered for persons over 60 years-old. Apart from age, multiple comorbidities are correlated with the increasing severity of influenza □ obesity, respiratory and cardio-vascular diseases.

Keywords: influenza, elderly patients, clinical form, evolution

THE MANAGEMENT OF PERTROCHANTERIC HIP FRACTURE

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Background: Pertrochanteric hip fracture is one of the most encountered traumatism, not only among civilians, but also concerning army corpse. In general, the lobby inclined to this pathology includes mostly elders, due to their susceptibility and contributory factors such as osteoporosis or other osteoarticular diseases. **Objective:** The purpose of this case report is to present the most efficient tactic in therapy management in order to provide an adequate, fast recovery with minimized risks and total regain of functional potency. **Material and methods:** There was studied the case of an 80 years old female suffering of a traumatism by falling from standing height. She accuses pain in the right hip region, deformation of this area and disability in mobilization of coxofemoral articulation. Radiological exam revealed pertrochanteric femoral fracture type 31A2 according to AO/OTA classification. As a result of preoperative exams, the patient was declared hemodynamic and respiratory stable. There was performed osteosynthesis using intramedullar gamma nail. In this particular type of surgical intervention, there were used not only general surgical kit, in order to gain approach into the affected region, pair the fractured part and reclaim anatomical position, but also the intramedullar gamma nail, a popular system formed of short reconstruction nail, locking screw, plate, screws, and stopper. During spitalization, the medication includes cefort preoperative and postoperative, fraxiparine and antalgics to reduce pain. **Results:** In view of this intervention, there was recommended bed resting, mentaining immobilization for 4 weeks, and total charge in 6 weeks. The gamma nail may be removed after one year, as a result of permanent callus development. **Conclusions:** To conclude, despite the high frequency of this pathology among risk exposed individuals, the complexity and precision of treatment achieved a remarkable recovery rate.

Keywords: Pertrochanteric, traumatism, osteosynthesis, gamma nail

ACUTE MYOCARDIAL INFARCTION COMPLICATED WITH VENTRICULAR SEPTAL RUPTURE – CASE REPORT

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Background: Ventricular septal rupture is one of the most important and tragic complications of a heart attack, with high mortality rate. It is self-evident that the rupture is associated with left-to-right shunt and, at long last, it mostly leads to circulatory failure and death, depending on the patient status. **Objective:** This specific case shall seek to show a proper medical management of a patient diagnosed with acute myocardial infarction in order not to get out of sight a severe complication which may lead to a dramatic end. **Material and methods:** 79-year-old female patient known with aortic stenosis, comes to the hospital having prolonged high intensity retrosternal pain, which irradiates in both of her upper limbs. Clinical and paraclinical exam leads to an acute myocardial infarction with ST segment elevation in the inferior area on the ECG. Echocardiography shows an inferior wall myocardial infarction, complicated with posterior ventricular septal rupture and significant left to right shunt, ejection fraction 40-45%, moderate aortic stenosis, aortic regurgitation and other cardiac comorbidities. Coronary angiography reveals severe coronary artery calcification and distal right coronary artery occlusion with TIMI score 0. The stent implantation performed via right radial approach, using 38 mm Xience 2.5 stent, on the right coronary artery leads to a good angiographic result. **Results:** Unfortunately, considering her condition, the evolution was unfavorable, with cardiogenic shock, cardiac arrest and death. **Conclusions:** During clinical exam, the auscultation was problematic because the left-to-right shunt sound could have been easily mixed up with the aortic stenosis sound. Therefore, medical imaging such as echocardiography was indispensable in order to establish a correct diagnosis.

Keywords: acute myocardial infarction, ventricular septal rupture, aortic stenosis, echocardiography

TCCC PROTOCOLS VS ERC PROTOCOLS

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Background: ERC represents the entity in the European civil space that establishes the protocols for resuscitation and intervention in case of medical emergency. TCCC represents a selection of most effective practices regarding trauma at battlefield level, consisting of 3 parts: the protocols under the threat of fire, protocols used on the battlefield and evacuation protocols. **Objective:** We present a differential diagnosis between those two protocols regarding the management of the situation, the specific equipment made available and the possibilities of evacuation. **Material and methods:** We used for theoretical support the ERC 2020 and TCCC 2019 guides. We followed the activity within the exercise "SEISM 2016" and the mobilization of NATO forces within "Vigorous Warrior 2019" exercise. We have noticed how each protocol has similarities with each other, but also specific adaptations so that each one makes the medical act prompt, valued and efficient in saving as many human lives as possible. **Results:** Data regarding the multinational exercise "Vigorous Warrior 2019" shows the possibility of collaboration of medical personnel from 39 different states in an exercise with over 2500 participants, working accordingly to TCCC protocols and under conditions similar in warlike periods of time. We observed the application of the ERC protocols in the exercise "SEISM2016" where was created a simulation of 3200 injured persons and where over 100 ambulances saw action. **Conclusions:** According to the norms and techniques mentioned above, we came to the conclusion that the two protocols have very strong similarities and are being specifically adapted in their original context. Therefore, it's up to the doctor what protocol he/she should apply for being in the best interest for the patient.

Keywords: TCCC, ERC, Vigorous Warrior, Seism

HPV INFECTION OF SINONASAL REGION. PRESUMPTION OR TRUTH?

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Background: HPV infection is known as being linked to cervical cancer, being one of the most common sexually transmitted infections. Though, our attention should not be focused just on the genital region, as there are studies which confirm the viral presence in some Head and Neck Cancers. Regarding sinonasal region, little it is known about how does a person get infected, but changes in the sexual behaviour are thought to be one of the causes of the raising number of cases. **Objective:** This study aims to detect the prevalence of HPV-linked squamous cell carcinomas of the sinonasal region by immunohistochemistry exam **Material and methods:** I have selected the cases of squamous cell carcinomas diagnosed between 2018-2019 with available histopathological result **Results:** 11 cases of squamous cell carcinomas were identified. Being processed for immunohistochemistry for protein p16, 2 of these were positive and so, linked to HPV infection. These 2 cases were a 65 year old man and a 72 year old woman. **Conclusions:** Though my research did not found many cases of HPV-linked squamous cell carcinomas of the sinonasal region, they are to be taken into consideration, among the other studies. Further investigations are required to identify the exactly pattern of infection, the treatment and the outcome of this tumors

Keywords: Carcinoma, HPV, sinonasal, squamous cell

ENDOVASCULAR TREATMENT OF A COGNARD TYPE IV INTRACRANIAL DURAL ARTERIOVENOUS FISTULA

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Background: Intracranial dural arteriovenous fistula's (DAVF's) are abnormal arteriovenous shunts located in the in the dura mater surrounding the venous sinuses. They account for less than 10% of all intracranial vascular malformations. Patients usually present with unilateral pulsatile tinnitus, headaches or focal neurological deficits if

brain parenchyma is compressed by dilated vascular structures. The most important complication of DAVF's is rupture and intracranial hemorrhage with high morbidity and mortality. **Objective:** To report the case of an unruptured DAVF treated by endovascular embolization and to highlight the specific clinical and imaging features of this frequently underdiagnosed disease. **Material and methods:** A 46-year-old male patient presenting with progressive left hemisensory deficits during a 4 year interval and right hemicranial headache, underwent a magnetic resonance imaging investigation, where a dilated vascular structure with compressive effect on the pre- and postcentral gyri was detected. Cerebral angiography showed the presence of a high-flow DAVF fed by both middle meningeal and occipital arteries, draining directly into an ectatic cortical vein. Transarterial embolization with Onyx under general anesthesia was performed obtaining complete obliteration of the fistula. **Results:** The postinterventional evolution of the patient was favorable, with the exception of persisting paresthesias. Control angiography at 3 months confirmed the complete cure of the fistula. **Conclusions:** Intracranial DAVF is a rare vascular disease, that is frequently missed and underdiagnosed. The most feared complication is rupture with subsequent intracranial hemorrhage. Catheter angiography is the gold-standard tool for diagnosis, staging and treatment planning. Endovascular therapy is the main treatment modality with high cure rates, and relatively low number of complications.

Keywords: intracranial dural arteriovenous fistula, embolization, endovascular, transarterial

THE STRATEGIC ROLE OF THE CANTACUZINO INSTITUTE - PAST, PRESENT AND FUTURE

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Background: National and global challenges of population health problems, pandemics, and epidemics with or without bioterrorism imply the national process of manufacturing biological products, vaccines and reagents with prophylactic and therapeutic role in viral, bacterial or parasitic infections, by implementing new technologies, capitalized by publications and patents, licenses and partnerships. In this context, the Cantacuzino National Military-Medical Institute for Research-Development, is the institution that conducts activities of strategic interest in the field of ensuring the protection of population health. **Objective:** The paper aims to bring to attention the very important role the single institute of sera and vaccines in Romania has played and still plays in maintaining the health of the population, to ensure and maintain real protection against the threats of viral, bacterial or parasitic infections. **Material and methods:** Articles and presentations from the specialized literature and from the institution website were used. The methods consist of the description and analysis, at various stages of historical evolution, of the Cantacuzino National Military-Medical Institute for Research-Development, from its establishment until the present day, when it was taken over by the Ministry of National Defense (M.Ap.N) and new strategies were introduced to make the institute an internationally recognized center. **Results:** In the study, we followed the external and internal context, with its threats and opportunities, and its influence on the involvement and means of the institute in preventing and combating the causes and mechanisms of bacterial, viral, fungal, parasitic infections, through research and development and transfer of new products and technologies. **Conclusions:** In the context of the current endemic and pandemic threats, of viral, bacterial, or parasitic infections, determined by microorganisms that have undergone genetic mutations that need a continuous adaptation of the treatments through the implementation of new technologies, the Cantacuzino National Military-Medical Institute for Research-Development has acquired a strategic role in protecting the health of the population.

Keywords: epidemics, Cantacuzino Institute, vaccines, health

COMPARATIVE STUDY BETWEEN THE COPING MECHANISMS OF DIFFERENT UNIVERSITY STUDENTS: MEDICINE AND ARTS

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Background: Humans are complex beings that are not always capable of coping with emotional difficulties they encounter or figuring out solutions for solving such difficulties. Hence, they end up surrounded by stress and tension, therefore compromising their ability to reach their goals. Students are not protected from such situations. On the contrary, they are facing additional pressure posed by challenges encountered during studying for

university. **Objective:** The objective of this study is to analyze the coping mechanisms of medicine students and arts students in Târgu Mureş in order to discuss the differences between the two student categories in dealing with stress. **Material and methods:** The study included 100 respondents: 50 of them are students at the School of Medicine and the other 50 are students at the School of Arts. The selection criteria represents their current year of undergraduate study (between 1 and 3), without any age restrictions. Students were provided with two questionnaires, an ATQ (Automatic Thoughts Questionnaire) and a CFQ (Cognitive Fusion Questionnaire) in physical format, without a completion time limit. They also had the possibility to analyze and answer the questionnaires in a comfortable environment of their own choice. **Results:** Arts students are two times more likely to obtain a CFQ higher than 20 than medicine students, According to their ATQ score, the arts students / medicine students are having the following class distribution : class 1 (8%/18%), class 2 (18%/4%), class 3 (26%/36%), class 4 (28%/20%), class 5 (20%/12%), There is a correlation between the ATQ and CFQ results for both arts students and medicine students. **Conclusions:** Arts students show a higher degree of cognitive fusion than medicine students, due to higher attachment to the content of their thoughts and a problematic relationship with their own emotions. Furthermore, arts students have a higher level of dysfunctional automatic thoughts, highlighting a lower level of coping.

Keywords: automatic thoughts, cognitive fusion, coping, stress

NEGATIVE PRESSURE THERAPY OF THE SURGICAL ABDOMINAL WOUNDS

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Background: The paper presents the evolution and the complications that appeared during the treatment of the surgical wounds that resulted from abdominal interventions that required a temporally wound closure using a negative pressure wound therapy (NPWT). This technique induces a physical and biological response that removes exudate and infection material, reduces edema and promotes formation of the granulation tissue.

Objective: The study aim is to highlight the results of NPWT in abdominal aria over other techniques. **Material and methods:** This is a single-center retrospective study that is based on documents from the General Surgery Clinic of County Emergency C Clinical Hospital from Targu Mures and the patient's observation sheets. **Results:** According to the method that was used to manage the abdominal defect there are two groups of patients: those who had treatment using a standardized management method, based on negative pressure wound therapy (NPWT) and those that have undergone surgery before this wound closure technique was introduced. Reliable evidence on the effectiveness of NPWT were noticed and the study proved to be statistically significant. The method of wound aspiration by creating negative pressure has been proven to have the best results, accomplishing several goals of wound man-agement: suctioning secretions, isolating the wound and in-creased the primary and definitive closure rate. Remarkable improvements were obtained in the following aspects: number of hospitalization days, early and later complications of the intervention, costs and mortality. **Conclusions:** Clear evidence from the study indicates that the effectiveness of such therapy is better than other local treatment for abdominal aria wounds. The treatment for open abdominal compartments wounds in the modern era is much faster, easier and safer because of the NPWT.

Keywords: negative pressure wound therapy, wound closure, abdomen

FUNDAMENTAL SCIENCES - PHARMACY

THE MOLECULAR MODELLING OF SOME INORGANIC COMPOUNDS IN AVOGADRO, DRAWBACKS AND WORKAROUNDS.

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Background: The best way to understand the meaning of a concept is to analyse its constituents, by this logic, molecular modelling could be defined as the study of a group of atoms that form the smallest unit of a substance with the aid of a three-dimensional representation. **Objective:** The main objective is to prove that, although there are certain drawbacks in using open source resources, with the aid of certain techniques and creative workarounds, these resources could become powerful weapons in the arsenal of every chemist and pharmacist that decides to use them. **Material and methods:** Avogadro is a cross platform molecule editor, although it is fairly simple by nature, and has certain issues, it can be embellished with certain plugins to expand its capabilities. The main method used is identifying the issue and then finding the proper workaround. **Results:** Depending on the severity of a certain encountered issue, by rationalising it, with the proper understanding of the reasons behind it, uncovering the best workaround becomes only a matter of time and creativity. **Conclusions:** Even though the field of computational chemistry and molecular modelling is virtually non-existent in the current curriculum, learning how to use these tools could become, in the near future, a necessity for most chemists and pharmacists. Learning a set of simple techniques and some basic concepts of molecular modelling could serve as building blocks that could lead to more complex results.

Keywords: Molecular, Modelling, Inorganic, Chemistry

PHARMACEUTICAL SCIENCES - PHARMACY

DETERMINATION OF OMEGA INDEX USING LIQUID-CHROMATOGRAPHY TANDEM-MASS SPECTROMETRY

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Background: The low uptake of polyunsaturated fatty acids (PUFA) from our daily meals can be a risk factor for several diseases involving the cardiovascular, respiratory and neuronal systems. **Objective:** The development of a simple and fast method using liquid-chromatography tandem-mass spectrometry (LC-MS/MS) in order to measure the free PUFAs from plasma for omega index determination. **Material and methods:** The PUFAs standards used were arachidonic acid (ARA), docosahexaenoic acid (DHA), eicosapentaenoic acid (EPA) and arachidonic acid-d11, as internal standard. The plasma samples were prepared by precipitating the proteins using acetonitrile (ACN), followed by a centrifugation. The PUFAs from the samples supernatant were separated on a Kinetex XB-C18 3.0 x 100 mm, 2.6 µm column, with a mixture of 15% ammonium formate and 85% ACN as mobile phase at a flow rate of 0.400 mL/min. The QTOF MS/MS detection was applied after negative electrospray ionization (spray voltage -3300V, vaporization temperature 580°C). **Results:** The calibration curves obtained for ARA, DHA and EPA were linear, with a $r > 0.99$, weighted factor $1/y^2$, LOQ of 2.5 µg/mL for ARA and 50 ng/mL for DHA and EPA, respectively. The validation showed accuracy and precision in the range of $\pm 15\%$ for both the within-run and between-run determinations. **Conclusions:** The developed LC-MS/MS method for determination of PUFAs from plasma proved analytical performances suitable for omega index determination as a routine method.

Keywords: Polyunsaturated Fatty Acids, Omega Index, Liquid-Chromatography Tandem-Mass Spectrometry (LC, Validation

ALLELOPATHIC PROPERTIES OF JUGLONE USED ON MICROBIOLOGICAL CULTURES AS A POTENTIAL DRUG

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Background: The overuse of antibiotics causes microorganisms to develop resistance which creates a major concern for human health. The binary system (BS) used in this study involves two compounds: juglone and β -cyclodextrin. Juglone (C₁₀H₆O₃) is a well-known allelochemical derived from the walnut-tree. It has an allelopathic property: a natural phenomenon by which one organism can have a beneficial or harmful influence on another organism. This effect is explored in order to inhibit the pathogen's multiplication. Additionally, to form an inclusion complex with Juglone and to increase its' solubility, a cyclic oligosaccharide (β -cyclodextrin) is used. **Objective:** We aimed to prove that our BS is as efficient, or even more efficient, than the pure juglone. Furthermore, our complementary goal was to demonstrate that a lower quantity of juglone may have a better result on inhibiting microbiological growth. **Material and methods:** In order to perform the practical part of the study, we have followed three phases: obtaining the concoctions, preparing the germs as well as the dilutions and reading the results. During the research we have prepared three different ratios: 1:1, 2:1, 1:2, which were tested along with pure juglone. The system was applied on *Staphylococcus aureus*, *Escherichia coli* and *Candida albicans*. The different efficiencies were analyzed within nine dilution rates made to find out the minimum inhibitory concentration (MIC) **Results:** Compared to pure juglone, the concoction in ratio of 2:1 occurred to have a better efficiency on all three cultures, having a lower MIC (pure juglone: 0,0625 mg/ml on *Staphylococcus aureus* and *Escherichia coli*, 0,25 mg/ml on *Candida albicans*; 2:1 ratio: 0,015625 mg/ml on both *Staphylococcus aureus* and *Escherichia coli*, 0,0625 mg/ml on *Candida albicans*). **Conclusions:** The study showed that the BS is more efficient than pure juglone, thus giving it a great potential for testing the multidrug resistant microorganisms and making it a highly innovative research.

Keywords: Antibiotic Resistance, Allelopathy, Juglone, β -Cyclodextrin

CHIRAL LIQUID CHROMATOGRAPHY FOR CLOPIDOGREL ANALYSIS

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Background: Chirality of drugs is an important property that is investigated through various techniques. Among them, chiral chromatography is distinguished. Clopidogrel contains a center of dissymmetry, and therefore it presents a pair of enantiomers. It is well-known that only the (S)-enantiomer has antiplatelet activity and the (R)-enantiomer does not manifest this action. Consequently, (R)-clopidogrel is considered to be an optical impurity of the active substance. **Objective:** The study aims to explain through extensive literature research why different mechanisms of separation are used for clopidogrel chiral discrimination in two main pharmacopoeias, the European and the United States Pharmacopoeia, respectively. **Material and methods:** A rigorous literature analysis regarding HPLC methods for clopidogrel analysis was performed through different database platforms. **Results:** Those who adopt a proteic column take into consideration their ability to mimic the biological environment. Therefore, the United States Pharmacopoeia has adopted an ovomucoid column for clopidogrel analysis. However, a cellulose-based column remains the official method for the determination of clopidogrel impurities in the European Pharmacopoeia due to its performance in terms of robustness. **Conclusions:** Clopidogrel chiral discrimination could be achieved through various HPLC methods, both ovomucoid and cellulose-based stationary phases proving the reliability of pharmacopoeia provisions, the high difference between the costs of the two types of columns and the relatively high sensitivity to degradation of a proteic column being important reasons to switch between them.

Keywords: clopidogrel, chiral separation, HPLC, chiral column

POSTER - SURGICAL

INTERNAL ILIAC ARTERY POST-TRAUMATIC PSEUDOANEURYSM – CASE REPORT

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Background: A pseudoaneurysm is a collection of blood that forms between the tunica media and the tunica adventitia of the vessel. It is usually caused by a penetrating injury to the vessel. Pseudoaneurysms of the internal iliac arteries are extremely rare and they can result as complications of trauma, surgical or interventional procedures. **Objective:** Our aim, through this report, is to expose how pelvic trauma and its complications can induce an internal iliac artery pseudoaneurysm and as well to present the evolution of the patient. **Material and methods:** We report a case of a 47-year-old man with polytrauma, an endovascular embolization of internal iliac artery pseudoaneurysm, left colostoma, right nephrostoma and bladder fistula in his medical history was admitted to the Vascular Surgery Clinic from Targu Mures. The patient is hospitalized due to pelvic and lower left limb pain, edema of the latter and pseudotumoral gluteal mass. The patient also presents secondary anemia, thrombocytosis, electrolytic disorders, coagulation and liver enzymes disorders. Pelvic CT examination reveals left sacroiliac dehiscence and multiple fractures with pelvic bone fragments, pseudoaneurysm (17x39x29mm) arising from the internal iliac artery (obturator branch) and retroperitoneal (at the level of the iliopsoas muscle), inguinal and gluteal hematoma, paravertebral and retro-rectal collection. The patient is directed to the operating room for vascular surgical intervention. **Results:** Firstly, we perform pararectal laparotomy with exploration of the internal and external iliac arteries, as well common femoral artery. Furthermore, ligation of the internal iliac artery and the obturator branch is done, together with the evacuation of the hematomas. We observe stable postoperative evolution, inexistent active hemorrhage. Also stable regarding the hemodynamic and respiratory parameters. **Conclusions:** We present this case in order to highlight the impact of pelvic trauma and its vascular consequences and also the injury made by the pelvic bone fragments.

Keywords: Pseudoaneurysm, Pelvic trauma, Internal iliac artery

A COMPLICATION OF UNTREATED LARYNGEAL CANCER: AN EMERGENCY TRACHEOSTOMY.

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Background: A tracheostomy is a surgical incision which provides an alternative air passage to help breathing when the usual route is somehow blocked or reduced. In this case, an emergency tracheostomy is performed because the airway was suddenly blocked by an untreated laryngeal cancer in an advanced stage of evolution. **Objective:** In the following case we present a middle-aged man that checks in at the Emergency Room at 1:38 am with the following signs and symptoms: shortness of breath, pathological whistling, downdraft, dysphonia and inspiratory dyspnea with superior obstruction. Pathological personal records include TB scars, chronic cigarette smoking and alcoholism. A local otorhinolaryngology exam is performed, and a tumoral infiltrative mass is identified in the inferior right hemi larynx. The symptoms escalated quickly which lead to performing an emergency tracheotomy at 2:03 am to restore the normal function of the respiratory system of the subject. **Material and methods:** Via a horizontal incision, under local anesthesia induced by Lidocaine 1%, the surgeon makes his way through the anterior cervical muscles, then cuts a portion of the thyroid gland, thus exposing the windpipe. Afterwards, the surgeon creates a tracheostomy hole situated in between the first and second tracheal cartilages and inserts the tracheal tube (a nr. 9). **Results:** In this case, the nr. 9 tracheal tube inserted ensures an alternative way of breathing. Following a favorable post-operative evaluation, the patient receives medical treatment consisting in: Metronidazole, Perfalgan, Amoxiplus, ACC 200. **Conclusions:** The lack of information and self-evaluation lead in this case to an advanced stage of untreated laryngeal cancer, which, based on the pathological personal records that the subject presents, made the case an emergency one.

Keywords: emergency tracheotomy, laryngeal cancer, tracheal tube

A METASTATIC PATH: MALIGNANT MELANOMA

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Background: Described as a type of cancer that develops from the pigment-containing cells known as melanocytes, malignant melanoma accounts for less than 5% of all skin cancer cases, but still, it is responsible for most deaths from skin cancer. In 2015, there were 3.1 million with an active disease which resulted in 59,800 deaths, revealing that the number of melanoma cases has been increasing for at least three decades. **Objective:** The aim of this study is to highlight the importance of early diagnosis and also, to underline some of the most life-threatening manifestations of malignant melanoma, such as intestinal, pulmonary and cerebral metastasis.

Material and methods: We present the case of a 76 years old, male patient, who was immediately hospitalized with occlusive manifestations, that have persisted for two-three days. From his past pathological history, mandatory remains an operated and cured malign melanoma, on the right retroauricular surface. Clinical examination revealed a 2.5-3 cm tumor formation, located on the right supraclavicular area. Exploratory median laparotomy divulged 6 intestinal tumors, with dimensions between 4 and 9 centimeters, located on the surface of the small intestine, 60 centimeters near the Treitz angle and two mesenteric metastases. The surgery consisted of segmental jejunal resection with jejunojunal anastomosis and segmental ileal resection with an ileostomy.

Results: Surgical post-operative evolutions were favorable, the patient was discharged from the hospital after 12 days. Guided to the oncological department, the anatomopathological report confirmed the pre-operative diagnosis: intestinal metastasis of malignant melanoma. After 9 months, imagistic investigations revealed pulmonary and cerebral metastasis. **Conclusions:** The peculiarity of this case consists of the unusual presentation of the patient. This highlights the variability of the malignant melanoma's sites of dissemination and the difficulties in managing such particular cases.

Keywords: melanoma, malignant, intestinal, metastasis

COMPLEX ASSOCIATION OF ECTOPIC PREGNANCY IN HIV-POSITIVE PATIENT REQUIRING EXTREME THERAPEUTIC MEASURES

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Background: Cesarean scar pregnancy is a rare form of ectopic pregnancy, which requires prompt recognition, as delay in diagnosis and treatment carries a high risk of uterine rupture and life-threatening hemorrhage. Moreover, HIV-positive patients present increased risk of heterotopic pregnancies. **Objective:** The aim of our presentation is to highlight the unique therapeutic challenges of these two entities (cesarean scar pregnancy and HIV seropositivity) and their association. **Material and methods:** We are reporting the clinical case of a 29-years-old female patient, pregnant (gestational age- 13 weeks and 6 days), known as HIV-positive for 12 years, under treatment with Lamivudine/ Zidovudine and Lopinavir/ Ritonavir, who was admitted in "Cuza-Voda" Clinical Hospital of Obstetrics and Gynecology Iasi, presenting with genital bleeding. Obstetric history was significant for one prior Cesarean section. Upon admission, serum beta-hCG measured 397mUI/ml and the ultrasound examination revealed a crown-rump length (CRL) corresponding to 7 weeks and 6 days, while M-mode ultrasound image showed no fetal heartbeat. Subsequently, hemostatic uterine curettage was performed. Significant uterine bleeding was observed, leading to uterine packing and rectal administration of Misoprostol, as well as the administration of 230 ml of packed red blood cells and 150 ml of fresh frozen plasma. An MRI examination was performed following the curettage and an expansive uterine mass was observed protruding the Cesarean scar region, invading up to the serous. It was decided to perform a total hysterectomy. **Results:** The postoperative course was uneventful, and the patient was discharged in a stable condition. **Conclusions:** Taking into consideration the low incidence of an ectopic pregnancy on a Caesarean fibrous tissue scar, as well as the impossibility of administering Methotrexate (in the context of HIV seropositivity) to the patient presenting this life-threatening condition, we can acknowledge the rarity of this clinical case, which can demystify the following steps that help cure or prevent severe conditions.

Keywords: heterotopic pregnancy, HIV, Cesarean scar, hysterectomy

STAGED TREATMENT OF COMPLICATED URETERAL CALCULUS

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Background: Treatment options for proximal ureteral calculi are represented by ureteroscopy (URS) or shock wave lithotripsy (SWL). **Objective:** The objectives of this paper is to evaluate the treatment features of a complicated ureteral calculus. **Material and methods:** We present the case of a 66 y.o male pacient with recent history of septic renal colic secondary to an obstructive right ureteral calculus. It was impossible to insert in a retrograde manner a JJ stent because the calculus could not be exceeded with the guide. Percutaneous nephrostomy was performed and the pacient was reffered for further treatment to Saint John Hospital. Urine cultures revealed *Pseudomonas aeruginosa* sensitive to most of the tested antibiotics. Treatment is given according to the antibiogram and on the 7th day surgery is performed. **Results:** Retrograde URS with laser lithotripsy and extraction of fragments was performed, followed by JJ stent indwelling. Nephrostomy removal was planned for the third postoperative day. The patient was agitated, did not respect the instructions of the medical staff and accidentally removed his nephrostomy tube on the first postoperative day. On the second postoperative day, following a defecation effort, total hematuria appears. Evolution was initially favorable under conservative treatment, but after 24 hours, intense hematuria reoccured, followed by retention with blood clots and decreasing blood pressure. A cystoscopy was performed, founding blood clots in the bladder (which were extracted), and two active bleeding sources at the lip of the ureteral orifice. Electrocoagulation with the resectoscope was performed and the JJ stent was extracted. The evolution was favorable. The patient was discharged after another 3 days with clear urine. Follow up visit after a week revealed clear urine, no dysuria and no bilateral hydronephrosis. **Conclusions:** Management of apparently simple calculi can sometimes be challenging. The patient's behavior may alter the postoperative course, and may generate differential diagnosis problems.

Keywords: ureteral calculus, percutaneous nephrostomy, hematuria, JJ stent

RENAL TUBERCULOSIS- AN UNDERDIAGNOSED PATHOLOGY

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Background: Even more than a century after its isolation and description by Robert Koch, Tuberculosis (Tb), according to the World Health Organization, remains the most common infectious disease. Urogenital tuberculosis is diagnosed in 1.1 % of all TB cases. Renal TB can lead to end-stage disease and renal failure by destruction of normal parenchymal architecture. **Objective:** We aim to bring to your attention the importance of recognizing genitourinary cases of Tb in countries where the prevalence is still noteworthy. **Material and methods:** The 71-year-old male patient was initially diagnosed and treated for renal carcinoma. The patient had a history of prostate adenoma, permanent atrial fibrillation, NYHA III cardiac insufficiency and dilative cardiomyopathy . The patient presented at the Emergency Room accusing fever, dysuria and pollakiuria. Due to left-sided ureterohydronephrosis described during the echo examination, he was transferred to the Urology Clinic. The contrast-enhanced scan of the abdomen revealed enlarged paraaortic and hilar lymph nodes, a heterogeneous lesion along the left kidney and ureteral involvement, classical imaging for transitional renal cell carcinoma. The routine blood tests showed anemia and increased levels of serum creatinine, urea and CRP. After the febrile accuses were solved, the patient was referred to surgery. The lesion described intraoperative was tumor-like with extensive necrosis, therefore radical left nephroureterectomy was performed. **Results:** The pathological examination infirmed the renal carcinoma diagnosis and revealed caseous necrosis, epithelioid granuloma, lymphocytic infiltration, pointing towards tuberculosis. Despite the known haematogenous dissemination from lung to kidney, the patient presented no medical TB background and no abnormal chest Xray. **Conclusions:** Genitourinary TB remains an underdiagnosed pathology, but a timely diagnosis and routine urine tests for isolating *Mycobacterium Tuberculosis* could save the kidney. Moreover, fine-needle aspiration cytology (FNAC) is a recommended procedure to avoid surgical intervention and might be used in the future even for atypical renal masses.

Keywords: genitourinary tuberculosis, radical nephrectomy, renal carcinoma

REVISION TOTAL KNEE ARTHROPLASTY IN A PATIENT WITH SECONDARY KNEE OSTEOARTHRITIS DUE TO RHEUMATOID ARTHRITIS. A CASE REPORT

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease that affects approximately 1% of adult population. The knee joint is the most commonly affected by the disease. Improved biological agents and new treatments in rheumatology have been successful, though joint destruction might keep progressing in several RA patients, to the point that some of them might require joint surgery. In cases when synovectomy is not effective, it has been shown that total knee arthroplasty would be decisive in reducing pain and restoring function. One of the indications of a constrained nonhinged design is the medial collateral ligament deficiency. **Objective:** We report the case of a 49-year-old woman affected by rheumatoid arthritis for 24 years who presented with secondary knee osteoarthritis and underwent total right knee arthroplasty. Our aim was to highlight the subjective and objective outcomes at different timeframes. **Material and methods:** The patient underwent right knee replacement surgery with arthroplasty of the right knee with the total cemented endoprosthesis stabilized posteriorly cemented Stryker/Triathlon TS-Knee was performed, as the disease was so debilitating that a prosthesis of revision was required. **Results:** At two weeks after surgery, the knee showed improved mobility (KSS: 48 preoperative vs 67) in flexion and extension (0-90°) with no varus-valgus instability. At 6 weeks postoperative the patient had a KSS of 79. **Conclusions:** The advantage of stability in the case of soft tissue or bony deficiency is provided by a constrained nonhinged design prosthesis. There is also a disadvantage of increased femoral bone resection due to the increased constraint. Short-term results are good because the patient has stage four RA and it is highly unlikely for the patient to engage in activity that would deteriorate the prosthesis faster because of the higher level of constraint. For such a young patient the long-term prognosis should take into account the possibility of a revision surgery due to deterioration of the prosthetic material

Keywords: Arthroplasty, Replacement, Knee, Osteoarthritis, Arthritis, Rheumatoid

POST-ORCHIDECTOMY GIANT RETROPERITONEAL SEMINOMA: CASE REPORT

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Background: Seminoma accounts for the most common testicular origin histological type of malignancies with increased incidence in young male patients. Retroperitoneal seminoma is a rare encounter with the most common cause due to remnant embryological origin. **Objective:** The aim of this study is to present the surgical management and challenges of a giant metastatic seminoma located in the retroperitoneal space. **Material and methods:** We present a 51-year-old male know with intellectual disability that presents diffuse abdominal pain with a distended abdomen at 1-year following right side orchidectomy. Abdominal CT indicates a huge differentiated and encapsulated tumor formation located in the left flank encompassing the inferior pole of the right kidney with associated hydronephrosis. He was admitted to the 1st Surgical Clinic Tîrgu Mures Emergency County Hospital. After preoperative preparation, we performed an exploratory laparotomy where we discover a giant tumor mass (19x20x21 cm) in the retroperitoneal space that enveloped the left kidney with the initial part of the ureter, the descendent and sigmoid mesocolon and with compression at the level of the middle abdominal cava and aorta. **Results:** We perform a tumor extirpation with left nephrectomy, left parietal peritonectomy, appendicectomy and local lymphadenectomy with no intraoperative complications. The patient was discharged after 25 days of postoperative care with the recommendation for further oncologic monitorization. **Conclusions:** Giant seminoma retroperitoneal tumors can represent a surgical challenge when secondary organ invasion is involved. Optimal resection margins are required. It remains undetermined if such tumors are developed primarily at extragonadal sites or represent metastasis of the primary testicular tumor.

Keywords: retroperitoneal tumor, seminoma, nephrectomy, metastasis

LAPAROSCOPIC TUMORECTOMY OF CLEAR CELL RENAL CELL CARCINOMA-CASE REPORT

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Background: Clear cell renal cell carcinoma also known as Grawitz tumor or hypernephroma is the most common kidney cancer. It occurs twice as frequent in men and has the highest incidence between 50 and 70 years of age.

Objective: The aim of this case report is to show the conservative laparoscopic approach of two patients with renal cell carcinoma. We present the cases of a 66 year old woman, respectively a 69 year old man who, after a follow up abdominal ultrasound, were both found with a tumor in the inferior lobe of the right kidney. **Material and**

methods: The laboratory investigations did not show values that would contravene the surgery. Following up, abdominal CTs were performed, which revealed tumors of approximately 4/3/2 cm, respectively of 3/2/2 cm in the lower lobe of the right kidney, noninvasive in the renal pelvis. The chosen therapeutic strategy was in both cases a laparoscopic tumorectomy after taking into consideration the characteristics of the tumors and the benefits of the procedure. The interventions consisted in the removal of a surgical piece consisting in tumorous tissue with clear margins. **Results:** The patients had a favorable evolution which led to their discharge on the 5th and on the 4th postoperative day. The histopathological examinations revealed tumors of 37/31/27 mm, respectively of 35/24/23 mm surrounded by normal tissue. The tumors proved to be clear cell renal cell carcinoma pT1aN0M0.

Conclusions: The tumorectomy of the renal carcinoma discovered in early stages is comparable with the radical nephrectomy regarding results, evolution and recurrence. The laparoscopic technique is superior considering the limited traumatic effect and the fast recovery.

Keywords: Clear cell renal cell carcinoma, kidney cancer, laparoscopic tumorectomy

SECTORIAL PORTAL HYPERTENSION AFTER SPLENIC ARTERIO-VENOSUS FISTULA. CASE PRESENTATION

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Background: The portal hypertension represents the increased pressure in the portal system usually caused by liver cirrhosis. However, there are another causes which has to be taken into consideration for diagnosis.

Objective: The goal of this paper is to emphasize the rare cases of portal hypertension and to avoid its treatment delay due to misdiagnosis. **Material and methods:** We present the case of a male patient GP, aged 39 years, who presented in emergency with severe bleeding from the upper digestive tract and hemorrhagic shock. The blood parameters revealed a severe anemia with Hgb-5.2 g/dl and very low blood pressure 70/40 mmHg. He was immediately resuscitated with fluids, blood, plasma and after stabilisation he undergone upper endoscopy which showed the bleeding source - oesophageal varices, and it was performed the endoscopic hemostasis using elastic bands. The blood test and the ultrasound examination didn't reveal any signs of liver cirrhosis, instead a portal hypertension. CT scan with contrast was able to identify a splenic arterio-venous fistula near the pancreatic tail. with sectorial portal hypertension. **Results:** The patient was operated and it was performed splenectomy with the aneurysmal sac resection. The postoperative course was favorable. Before discharge, he remembers that he had 20 years ago a left hypocondrium trauma which didn't required surgery. **Conclusions:** The portal hypertension is usually caused by liver cirrhosis but sometimes might have strange origins and a detailed anamnesis associating the proper imaging investigations can lead immediately to the correct diagnosis and treatment.

Keywords: portal hypertension, splenic arterio-venous fistula, oesophageal varices

ACUTE CHOLECYSTITIS AND PYOGENIC LIVER ABSCESS DUE TO CHOLECYSTOLITHIASIS IN PATIENT WITH POLYALLERGY: A CASE REPORT

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Background: Cholecystolithiasis is one of the most frequent diagnoses that general surgeons operate on. However, it can lead to life threatening complications in patients improperly treated due to the risks associated with their other conditions. **Objective:** The purpose of this paper is to present a case of cholecystolithiasis complicated with acute cholecystitis and a pyogenic liver abscess in a patient allergic to multiple drugs. **Material and methods:** A 71-year-old female patient, known with polyallergy, severe obesity, stage 2 hypertension associated with a high cardiovascular disease risk, hypothyroidism and chronic calculous cholecystitis, presented with pain in the right hypochondrium and nausea, symptoms which worsened during the 3 days previous to the hospital admission. The CT exam showed a moderate gall bladder wall thickening with pericholecystic fluid and a hyperdense 34 mm lesion at the IVb-V segments level, with liquid content, in direct contact with the gall bladder. The bacteriological exam displayed the streptococcus viridians group. Allergy exams were also performed, testing positive for esmeron, mialgin, diazepam, paracetamol, mabron, mivacron and algifen. **Results:** The acute calculous cholecystitis and pyogenic liver abscess diagnosis were established, for which laparoscopic antegrade cholecystectomy and evacuation of the abscess were performed. The laparoscopic procedure had to be converted to a classic one due to the peritoneal adhesions that were encountered, but with an uneventful outcome. Medication was assigned according to the polyallergic status and the evolution was favorable. **Conclusions:** The particularity of the case consists in the complications that followed cholecystolithiasis due to the lack of intervention, fearing the associated conditions of the patient, a prompt surgical approach being essential for their prevention.

Keywords: cholecystolithiasis, acute cholecystitis, pyogenic liver abscess, polyallergy

DIAGNOSTIC AND MANAGEMENT OF AN INCIDENTAL PORCELAIN GALLBLADDER

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Background: Chronical irritation of the gallbladder (GB) wall eventually leads to calcifying/calcified cholecystitis or porcelain gallbladder (PGB), the end stage of chronical cholecystitis, present at all ages but predominantly affects older women. Calcium dysmetabolism, cystic duct obstruction leading to bile stagnation presumably cause the PGB which is usually asymptomatic and can even be present in acalculous cholecystitis. **Objective:** We present a case of 81 year old female with a perforated prepyloric ulcer, incidentally diagnosed with a PGB. **Material and methods:** A comatose 81 year old female patient was rushed to the ER. Blood tests indicated a toxicoseptic shock. A quick clinical examination revealed a solid mass in the right hipocondrium, no bowel movements. Abdominopelvic CT-scan showed pneumoperitoneum, perihepatic; perisplenic; left flank and Douglas pouch fluid, no hydroaeric levels, a calcified GB with no opaque calculi, sclerous and atrophied kidneys with no calculi or hydronephrosis and cystic left kidney. **Results:** In the context of acute abdomen, a subsequent urgent laparotomy was performed: generalized peritonitis caused by a perforated prepyloric ulcer which was sutured and according to the CT-scan findings, a PGB was diagnosed with adhesions. An anterograd cholecystectomy and adhesiolysis were performed, finishing with a thorough abdominal cavity lavage, subhepatic drainage, abdominal wall closure, skin suture and sterile wound dressing. Unfortunately, age and associated comorbidities led to the worsening of the overall patient status. She passed away on postoperative day 2. **Conclusions:** Although PGB is a rare condition, it requires awareness because conditions such as calcified hydatid cyst, large calcified gallbladder calculus can mimic it. Therefore an abdominal CT-scan is reliable for diagnostic. Recent studies show weak relationship between PGB and GB cancer but it must be considered. Open cholecystectomy is preferred to laparoscopic approach. The case is unique because of an incidental PGB diagnosed in acute peritonitis caused by a perforated prepyloric ulcer.

Keywords: porcelain gallbladder, incidental, acute peritonitis

THE SUBCLAVIAN ARTERY STENOSIS AND HIS MANAGEMENT

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Background: The subclavian artery stenosis (SAS) can cause ischemia (due to the insufficient blood supply to tissues) both at the level of the upper limbs, as well as at the cerebral level and in some cases even cardiac. The main cause is atherosclerosis and the risk factors associated are: smoking, obesity, hypertension, dyslipidemia and diabetes. In asymptomatic cases, drug treatment is preferable. **Objective:** A 60 years male patient with stenosis of the left subclavian artery 80%, diabetes type II, hypertension grade III, chronic ischemic cardiopathy and left ventricular failure. The patient has arrived in our service in the programming mode **Material and methods:** The investigation method used to make the diagnosis was the arteriography, which showed a significant stenosis. Doctors tried endovascular treatment, but without success. Instead, a bypass axilo-axillary with the Goretex prosthesis was done. **Results:** In this pathology, endovascular stenting is initially attempted, then comes the angioplasty and if those two ways don't succeed, an open surgery is being taken into consideration as the solution of the case. The post-operative results were very good. **Conclusions:** Due to a very good treatment of this case and the patient's ambition, the evolution was favorable and the result exceeded the expectations.

Keywords: occlusive, endovascular treatment, bypass, arteriography

ANASTOMOSIS FISTULAS IN COLORECTAL CANCER – PRELIMINARY RESULTS

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Background: Colorectal cancer is a malignant tumor with abnormal proliferation, located at the level of the colon or rectum. Most commonly it is recorded in the elderly, at the age of 70-80. Anastomosis fistula is a severe complication, which appears following the surgery performed in the colon or rectum. **Objective:** The aim is to find if there is any a correlation between the surgery performed on the colon and rectum for colorectal cancer and the appearance of anastomosis fistulas. **Material and methods:** We performed a retrospective study, in the period 2017-2018, containing 335 patients admitted and operated in the Surgery Clinic 1, at the Clinical County Emergency Hospital of Tîrgu-Mureș. The data were taken from the operative registers, the observation sheets and the histopathological bulletins of the patients. The parameters followed in each patient were: age, sex, provenance, hospitalization (urgent / chronic), body mass index, smoking, alcohol, hemoglobin, diabetes, heart disease, tumor history, radiotherapy, chemotherapy, type of anastomosis, anastomosis performed manually or mechanically, operation performed by laparotomy or laparoscopy, ASA score, the operator diagnosis, the performed operations, the operator time, days of hospitalization, days of ATI, associated operations, complications, surgical reinterventions, histopathological diagnoses, staging and death. **Results:** Of all the parameters included in this study, statistically significant, associated with the appearance of anastomosis fistulas are: the hospitalization days, the operative time and the risk of death. In patients with anastomosis fistulas, the hospitalization time is longer compared to patients without fistula ($p < 0,0001$). Prolonged operative time predisposes to the appearance of anastomosis fistulas ($p < 0,0134$). According to the study, the incidence of deaths is higher in patients with fistula ($p < 0,0130$). **Conclusions:** Anastomosis fistulas increase the hospitalization period and alter the postoperative prognosis of patients. Prolonged operative time increases the incidence of anastomosis fistulas.

Keywords: colorectal cancer, anastomosis fistulas, postoperative complications

THE SILENT KILLER: ATHEROSCLEROSIS

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Background: Atherosclerosis still represents the main cause of death and premature morbidity nowadays. Even if there are many systemic causes in its etiology, atherosclerosis appears to impair preferentially certain vascular territories, such as the coronary arteries, the carotid or the lower limb arteries. There are two big problems with this disease: we are all affected sooner or later and in the initial stages it is clinically silent. **Objective:** Our aim is to present the case of a 68 year old patient with multiple atheromatous plaques in the right CCA (without significant stenosis) and in the right ICA where the CT Angiography revealed a 78% stenosis. The patient underwent a Carotid Endarterectomy. **Material and methods:** 68 year old male presented to our clinic accusing headache, dizziness and asthenia. Given the CT Angiography, we decided to perform a Carotid Endarterectomy. We started with an oblique incision medial of the sternocleidomastoid muscle, afterwards we revealed the ACC and the ACI and we suspended them on threads and we clamped them. The sanguine flow was poor, so we decided upon practising an endarterectomy using a Schmidt spatula. Following this, the blood flow was satisfying. We released the previously clamped ACC and ACI. Finally, we sutured the anatomical plans and we patched up the region. **Results:** Following the surgery, the patient was hemodynamically stable, conscious and the wound was healing properly. **Conclusions:** Although the formation of the plaques spans decades, this lesions can reach a clinical expression within minutes and manifest as catastrophic myocardial infarction, limb ischemia or stroke, of which it represents the main cause.

Keywords: atherosclerosis, carotid artery, endarterectomy

RIGHT NEFRECTOMY WITH SUPRRENALECTOMY FOR LEFT PULMONARY ADENOCARCINOMA METASTASIS

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Background: Adrenal metastases are the most common malignant lesions of the adrenergic glands and the second tumor entity following adenomas with this localization. The most common primary tumors that metastasize to adrenal glands are located to the lung (39%), mammary gland (35%), skin (malignant melanoma), gastrointestinal tumors, pancreas and kidney. About 30% - 70% are discovered incidentally on computed tomography, nuclear magnetic resonance imaging, positron emission tomography or following autopsy. These metastases are discovered on average 2.5 years following primary tumor diagnosis and their increased incidence is mainly due to the increasing number of lung and breast cancers. **Objective:** We present the case of a 49-year-old female patient with left inferior pulmonary lobectomy for adenocarcinoma who is re-hospitalized for a right adrenal tumor formation that engulfs the right kidney, 2 years after the initial surgery. **Material and methods:** The patient's history shows abdominal discomfort with pain in the right hypochondrium with posterior irradiation and bloating. Contrast tomography shows a tumoral process of the right adrenal gland with the invasion of the superior kidney with the lack of a cleavage plan with respect to the superior vena cava and the caudate lobe and a nonfunctional right kidney. Adrenalectomy is performed with right nephrectomy and partial diaphragmatic pillar resection. **Results:** Postoperative evolution is favorable with a diuresis of 1500 ml / 24 hours and the lack of adrenergic crisis. The patient is discharged on day 7 postoperative day. **Conclusions:** Adrenal metastases are a clinical entity that are difficult to differentiate. Adenomatous tumors and pheochromocytoma have to be taken into account when faced with such a patient. Intraoperative examination and histopathological confirmation represent the only certainty.

Keywords: adrenal glands, metastases, pulmonary adenocarcinoma

MEDULLARY THYROID CARCINOMA-SURGICAL TREATMENT WITH TOTAL THYROIDECTOMY

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Background: Medullary thyroid carcinoma represents 4-5% of thyroids cancers, with an equal rapport between the sexes. It has the origin in parafollicular C-cells whose secretory substances includes ACTH, VIP, serotonin but the most important is calcitonin, who can be used as a principal biochemical marker in MTC. **Objective:** Our aim is to present a rare case of thyroid cancer along with its diagnosis and treatment. **Material and methods:** A 53-year-old woman with high blood pressure diagnosed with multinodular goiter comes to our clinic for a second endocrinological evaluation. Thyroid echography reveals a macronodule (35,9/26.88mm) in the right lobe and a micronodule (7,2/9mm) in the left lobe. As long as the macronodule had all the suspicious features (hypoechoic nodule with microcalcification, an irregular outline, and intense intra-nodular vascularity) a fine needle aspiration biopsy was made only from it and it confirmed the diagnosis of multinodular goiter. During the hospitalization, the patient was euthyroidian but with high levels of calcitonin (129,6 pg/ml) and for this reason, an FNAB from the micronodule was made and the cytological result sustained the diagnosis of medullary thyroid carcinoma. The patient was sent to the surgery section where a total thyroidectomy with central neck lymph node dissection was performed. **Results:** After the surgery, a substitutive hormonal treatment with levothyroxine was mandatory and, because the patient had tetany caused by hypocalcemia, intravenous calcium was administered. The histopathological result confirmed the diagnosis of MTC, without lymphonodular metastasis. **Conclusions:** The cytological or morphopathological diagnosis of MTC includes clinical and paraclinical screening for a familial syndrome but also includes the germline mutation in the RET-proto-oncogene. Total thyroidectomy with bilateral neck dissection is the "gold standard" for treating medullary thyroid cancer, but its chance to increase the survival rate depends on the promptitude of diagnosis.

Keywords: thyroidectomy, calcitonin, FNAB

A CHALLENGING CASE OF VITELLINE UMBILICAL FISTULA

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Background: Combination of vitelline fistula and omphalocele at birth is a rare congenital anomaly as a result of disturbance in organogenesis with failure of normal return of intestines into the abdominal cavity and failed obliteration of the vitelline duct. **Objective:** Diagnosis of Vitelline Fistula in the presence of omphalocele may be misleading. The aim of this research is to present the management of Vitelline Umbilical Fistula including diagnosis methods and the ways of treatment. **Material and methods:** We present a case of a 3 months old newborn known with inguinal abscess healed admitted at the Pediatric surgery and orthopaedics with edema, rash and umbilical suppuration. The abdominal echography excluded umbilical vein thrombosis and described a replacement process with fluid of the retroumbilical space (diameter 23/16 mm). It was performed a fistulography with contrast substance for the best initial diagnostic imaging approach for identifying and confirmation of a fistula tract. **Results:** Treatment of this condition consists in excision of the fistulous tract and closure of the ileal wall which communicates with the fistula via transumbilical approach. A circular incision between the umbilical skin and also the ileal mucosa is created. The fistulous tract from the encompassing tissue was dissected and remained sustained into the peritoneal cavity. Upon entering the cavity, the ileum which is connected to the fistula is mobilized. After a division of the mesodiverticular band, a wedge resection of the vitellointestinal tract is completed and also the ileum is closed with two layers with absorbable sutures. **Conclusions:** An omphalocele is a rare abdominal wall defect in which organs remain outside of the abdomen in a sac with prevalence of approximately 3 per 10,000 live births. It is associated with other congenital malformations, such as cardiac anomalies, neural tube defect and chromosomal abnormalities.

Keywords: vitelline fistula, omphalocele, pediatrics

COMBINED MINIMALLY INVASIVE AND OPEN TECHNIQUE USED IN TREATING A MULTIPLE KNEE LIGAMENT INJURY

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Background: Multiple ligament injuries (MLIs) are rare but potentially disabling traumatic events that involve at least two of the 4 major ligaments of the knee (anterior cruciate ligament [ACL], posterior cruciate ligament [PCL], posteromedial corner [PMC] and posterolateral corner [PLC]). There can appear a wide range of ligament, soft tissue and neuro-vascular injuries in these patients. The management of such complex injuries requires a systematic approach but there appears to be a lack of consensus among experts regarding how to treat multiple-ligament knee injuries. **Objective:** Presenting a case of MLI due to work related trauma and our approach in treating it. **Material and methods:** Our patient is a 41 year old male fireman. While on duty he injured his left knee, resulting in pain, swelling and loss of function. Physical examination and Magnetic Resonance Imaging showed ACL, PCL and PLC rupture and fracture of the tibial plateau. In emergency, on 4th of July 2019, a temporary arthrolysis using 2 Kirschner wires placed in X was performed, after which the patient had his leg immobilised for 7 weeks. Then, he underwent physical therapy for the following 6 months with good muscular recovery. He presented to our clinic on 2nd of March 2020. We performed a physical examination, reviewed the MRI and decided to run a battery of immunological tests in order to search for donor ligament because an autograft would have been insufficient. Tests came back negative and an achilean tendon was available so we programmed the surgery for 5th of March. We decided to use a combined, arthroscopic and open method with 3 grafts prepared from the donor ligament. **Results:** The patient is alive and well. He is in recovery and we are looking for follow-up. **Conclusions:** MLIs can be treated through a combined method with good results and minimal scarring.

Keywords: Multiple Ligament Injury, Arthroscopy, Minimally Invasive, Donor Ligament

SURGICAL MANAGEMENT OF A GIANT COMPRESSIVE GOITRE IN A HIGH DOSE ANTICOAGULANT PATIENT

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Background: One of the thyroids most common benign diseases is nodular goiter, which can be found across all ages. In the beginning of the disease, the nodules are small, showing no signs of compression and making the diagnose difficult in the early stages. When the patient presents with obvious compression symptoms, giant nodular goiter has already become life-threatening. **Objective:** The aim of this study is to present the surgical management of a gigantic retrosternal, retrotracheal goiter which associates dysphagia and dyspnea on a high dose anticoagulant patient (Clexane 80mg twice/day). **Material and methods:** We present the case of a 61 years old patient admitted in Surgery Clinic 1 of the Emergency Clinical County Hospital of Târgu Mureş. On admission she presented a tumoral lesion in the anterior cervical region which associates dysphagia and dyspnea, atrial fibrillation, grade III obesity, left ventricular failure, hypertension. After a physical examination and a thyroid ultrasound were performed the patient was diagnosed with giant compressive, retrotracheal, retrosternal, mediastinal, epilaringeal muscle infiltrating goitre. Fine needle biopsy was not performed due to the increased risk of bleeding. **Results:** After a proper preoperative preparation a total monobloc thyroidectomy using LigaSureTM Small Jaw device was performed. The dimension of the left lobe was 15x10x8cm and for the right one was 10x8x6cm. **Conclusions:** Surgical treatment is available even in these extreme cases with high doses of anticoagulants due to the benefits of these vessel sealing devices as LigaSureTM Small Jaw.

Keywords: vessel sealing device, dysphagia, monobloc thyroidectomy

BREAST CANCER BETWEEN MEDICINE AND CULTURAL BELIEFS

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Background: It is well known that among women breast cancer is one of the leading causes of death. Studies have shown huge differences in breast cancer survival rates worldwide, induced by several agents, such as inaccuracies in the general practitioner's first diagnose, unavailability of mammography routine screening, the tendency of choosing a homeopathic first-line treatment, cultural factors. **Objective:** The aim of this paper is to present the case of a 67 years old female patient, with a history of breast malignancies, who opted for homeopathic first-line treatment. **Material and methods:** Paraclinical examination of the first tumor formation laid out the presence of an extensive, poly-lobular, well-defined process, with an inhomogeneous structure, which also presents peripheric iodophilia and central necrosis, located at the level of the left mammary gland, instilling the pectoral muscles, the anterior serrate muscle and the adjacent adipose tissue. Adenopathy is present in the left and right axillar fossa as well as within the pre-sternal region. The CT of the tumoral relapse laid out a nodular formation between the 2 plans of the major pectoral muscle and the minor pectoral muscle in association with 3 poly-lobulated tumoral masses at the level of the left breast. The medical record of the patient points out essential high-blood pressure, obesity, hydronephrosis and a history of major surgical procedures. **Results:** In accordance with the first diagnosis, a mastectomy was performed using the Madden technique. Regarding the tumoral relapse, the excision of the tumoral mass was performed in association with the partial section of the major pectoral muscle. **Conclusions:** Major health problems trigger inflammation which in association with a malignant status and improper alternative medicine treatment determine relapses and aggravation of the health status. It is still to be discussed if a more radical surgical procedure would have been proper in our patient's case.

Keywords: breast cancer, malignancy, cancer recurrence, mastectomy

SEVERE PERIPHERAL ARTERY DISEASE - AN ENDOVASCULAR APPROACH CASE REPORT

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Background: The main cause of peripheral artery disease (PAD) is represented by atherosclerosis and it can be present in a variety of forms from asymptomatic to gangrenous stages. Thus, The Inter-Society Consensus for the Management of Peripheral Artery Disease from 2007 (TASC II) provided a classification of PAD in order to aid the diagnosis and treatment of this clinical entity. **Objective:** This abstract aims to highlight the importance of the patient's status while deciding between open surgery or endovascular approach in a patient suffering from advanced PAD. **Material and methods:** A 57 years old male patient, active smoker, with history of dyslipidemia and previous episodes of intermittent claudication was admitted to the University Hospital in Padova on the Vascular Surgery Department. The patient complained from intermittent claudication in the right lower limb which worsened with time. Preoperative computed angiography revealed calcified plaque obstructing the lumen of the right common iliac artery (CIA), external and internal iliac arteries (EIA, IIA) with the patency of the right femoral artery, pleading for a type D lesion in the TASC II classification. The length of the occlusion measured 165 millimeters. The surgical team opted for an endovascular approach, placing two catheters in both right and left external iliac arteries and surpassed the plaque with two guidewires using a gooseneck. Afterwards, a balloon expandable covered stent was introduced from the origin of the right CIA, followed by the deployment of a self-expandable stent in the right EIA. **Results:** The postoperative angiography revealed the recanalization of the previously occluded right iliac axis. **Conclusions:** Even though confronted with a difficult case of PAD, the surgical team decided upon an endovascular approach taking the age and active status of the patient along with the disadvantages of long postoperative hospitalization period into consideration.

Keywords: Atherosclerosis, Peripheral Artery Disease, Endovascular Approach

THE BEST GRAFT CHOICE IN ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION: A SYSTEMATIC REVIEW

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Background: The anterior cruciate ligament (ACL) reconstruction is a common surgical procedure in our department. However, there is no consensus to what the best autologous graft options is to replace the injured ACL. The main options available consists of autografts which include: bone-patellar tendon-bone graft (BPTB); hamstring tendon (HS) and quadriceps tendon (QT) and many others. **Objective:** The aim of the study was to perform a systematic review of the ACL reconstruction and comparing outcome of the use of different types of grafts. **Material and methods:** For this study, we did a search of "PubMed" using some key terms, such as: "anterior cruciate ligament" also "ACL" together with "reconstruction". In this systematic review only studies that had a minimum follow-up of five years were used. **Results:** Reconstruction following the use of HS had better outcomes than using BPTB in terms of mean pain score after the post operative time interval (medium versus severe pain) but there was more complication in QT group(28%;n=110)than in the BPTB group(21%;n=110). However there were no significant difference between QT and QS in functional outcomes at 12 and 24 months follow up, but instead the QS group needed a higher drug supplement in the post-operator time (62%;n=24)than QT group(50%;n=24). Also the QS group had a better peak torque in the extensor muscle strength at 3 and 6 month follow-up than the QT group. The arthroscopy after 5 years revealed that HS graft produced better synovial coverage than BPTB and QT. **Conclusions:** All in all, the graft choice in a revision of anterior cruciate ligament should be based on many criteria, such as: pain intolerance, the faster procedure, the faster recovery and many other points of view.

Keywords: autografts, anterior cruciate ligament, reconstruction, systematic review

LAPAROSCOPIC CHOLECYSTECTOMY AND SPLENECTOMY FOR A RARE CASE OF A HEREDITARY SPHEROCYTOSIS WITH MASSIVE SPLENOMEGALY AND CHOLELITHIASIS

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Background: Hereditary spherocytosis (Minkowsky-Chauffard disease, or congenital hemolytic jaundice) is a hereditary disorder. The clinical findings are: anemia, jaundice, splenomegaly, pigmentary cholelithiasis and spherocytosis. Due to the increased osmotic fragility of the red blood cells and losing the ability to deform, the spherocytes are retained in the spleen and eventually destroyed. The treatment is represented by the surgical approach: splenectomy and cholecystectomy if needed. **Objective:** Because the treatment consists practically in two different procedures (cholecystectomy and splenectomy) we consider that the laparoscopic approach offers many advantages over the classical procedures. The laparoscopic approach is a minimal invasive technique with better cosmetic result and faster recovery, but it needs a very well trained surgical team with expertise in advanced laparoscopic procedures. **Material and methods:** We presented a case of a young patient, 15 years old diagnosed with hereditary spherocytosis and cholelithiasis, with anemia, elevated serum bilirubin levels and massive splenomegaly (19x6 cm). During the operation we completed two procedures: cholecystectomy and then a splenectomy. For splenectomy we used only one additional trocar (five trocars in all). The spleen was extracted without morcellation through a Pfannenstiel incision in order to allow a better histopathological examination. **Results:** The time of the operation was 90 minutes and the postoperative evolution was uneventful. The patient was discharged after three days with higher values of hemoglobin and normal bilirubin level. **Conclusions:** Using laparoscopic cholecystectomy and splenectomy in a one stage operation we avoided the big classical incisions and the necessity of a two stages operation. Because the patient was a child, laparoscopic approach was more advantageous due to the cosmetic incisions and rapid recovery.

Keywords: hereditary, spherocytosis, splenectomy, cholecystectomy

SURGICAL MANAGEMENT OF A ASCENDING COLON NEUROENDOCRINE CARCINOMA WITH INTERAORTICOCAVE MASSIVE ADENOPATHIES

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Background: Neuroendocrine tumors (NETs) of the gastrointestinal tract are rarely seen in the clinic, a general overview says that 5% to 7% occur in the colon. Common gastrointestinal adenocarcinomas are more frequent than gastrointestinal and pancreatic NETs. The tumors have a slow way of development although they are malign and have a great capacity to invade neighbour structures. Surgical resection has proven to be the most effective method over time. **Objective:** Our goal is to present a successful surgical approach of a 57 years old female patient, with a neuroendocrine tumor of the ascending colon and interaortocave massive adenopathies. **Material and methods:** A 57 years old female patient, known with hypertension and dyslipidemia came into the surgery section of the County Emergency Hospital Bistrita-Nasaud accusing pain in the right iliac fossa. Preinternal investigations consisted of abdominal CT-scan which revealed a supracecal stenosis tumor with intralesional abscesses and retroperitoneal interaortocave macroadenopathies and specific biochemical tests which showed: inflammatory syndrome and mild anemia. There was also performed an inferior digestive endoscopy that revealed a polypoid formation on the ascending colon, partially circumferential stenosed. Following the decision of the oncology committee, the surgical intervention was decided. Extended right hemicolectomy was performed up to the transverse colon including the removal of the perirenal fat and adenopathies from the infrapancreatic upper mesenteric vessels. Surgery included also ureterolysis and L-L isoperistaltic ileotransverse anastomosis. **Results:** The postoperative evolution was favorable, with a rapid resumption of the transit, allowing drainage suppression and restarting the oral alimentation. **Conclusions:** The particularity of the case consists in the retroperitoneal interaortocave massive adenopathies and the lack of symptoms of the neurosecreting tumors. Even though initially the tumor is considered to be a poorly differentiated adenocarcinoma, the immunohistochemical tests have surprisingly revealed a diagnose of neuroendocrine tumor.

Keywords: Neuroendocrine tumors, surgery, ascending colon, hemicolectomy

PRE- AND POSTOPERATIVE MANAGEMENT OF GIANT INCISIONAL HERNIA. CASE REPORT

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Background: Incisional hernias represent the most frequent complications after laparotomies. If neglected, they can develop large sizes, having a herniated orifice greater than 10 cm conform the European Hernia Society. Loss of domain may appear, due to which postoperative intra-abdominal hypertension and compartment syndrome can occur, which is life threatening. This complication can be predicted by preoperative CT measurements and postoperative intra-abdominal pressure evaluation. **Objective:** Our purpose was to present the correct management of a giant incisional hernia, within a case report. **Material and methods:** A 51-year-old patient is admitted to our Surgery Clinic, presenting a multisacular giant incisional hernia, which appeared eight years ago. From the anamnestic data it turns out that the patient consumes a pack of cigarettes a day and has a body-mass-index of 26.85. The CT examination highlights two giant incisional hernias one over the other, having the herniar orifice of 123 mm and 105 mm, with a total volume of 295.27 cm³. The volume of the abdominal cavity was 9262 cm³. The rate between the two cavity volumes was 0.0318. **Results:** During surgery abdominal wall reconstruction with Prolene mesh and hernial sac was carried out. Intraoperatively, the intra-abdominal pressure was 15 mmHg, which increased postoperatively to 17 mmHg. The patient was discharged on the fifth day with favorable evolution. The peculiarity of the case was given by the presence of the two giant incisional hernias. **Conclusions:** The preoperative CT scan is obligatory in cases of giant incisional hernias and it is able to provide significant data regarding the selection of the surgical technique. Abdominal pressure measurement is the appropriate procedure for detecting early postoperative complications after abdominal wall reconstruction.

Keywords: Giant incisional hernia, Loss of domain, Intra-abdominal pressure, CT scan

RECONSTRUCTION OF INFERIOR EYELID USING TENZEL FLAP ON A PACIENT WITH MALIGNANT MELANOMA

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Background: Melanoma is an aggressive malignant tumor that consists of an uncontrolled proliferation of melanocytes. Representing less than 5% of skin tumors, it is considered to register the majority of all skin cancer deaths. The purpose of the reconstruction operations of the eyelid after the excision of malignant melanoma is both to restore their structure and function as well as to obtain satisfactory aesthetic results. **Objective:** The aim of this paper is to present one of the reconstructive methods of the lower eyelid defect in a patient who has undergone an excision surgery for malignant melanoma at this level. **Material and methods:** We present the case of a 78-year-old female patient admitted in the Plastic Surgery section of the Brăila County Emergency Hospital, being diagnosed with lower eyelid malignant melanoma. After excision of the tumor formation, post excisional defect reconstruction, which represented 60% of the dimensions of the eyelid, was performed with Tenzel lateral semicircular flap, canthotomy, cantholysis of the inferior lateral cantal ligament, suture wound, and bandage. **Results:** The postoperative evolution was favorable with no signs of local complications. The patient was discharged in the course of healing and the aesthetic result is a favorable one with the improvement of the quality of life. **Conclusions:** Taking into account the evolution of the patient we can conclude that the Tenzel flap is one of the methods of reconstruction of the lower eyelid that gives satisfactory results both aesthetically and functionally.

Keywords: eyelid reconstruction, Tenzel flap, malignant melanoma

THE IMPORTANCE OF DIAGNOSIS IN BASAL CELL CARCINOMA

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Background: Basal cell carcinoma (BCC) is the most common form of skin cancer and the most frequently occurring form of all cancers. In the U.S. alone, more than 4 million cases are diagnosed each year. **Objective:** The aim of this paper is to highlight the high rate of recurrence of basal cell carcinoma. **Material and methods:** We have three cases of BCC: two radiogenic and one non-radiogenic. In the first radiogenic case our patient benefited from radiotherapy for treating a hemangioma that evolved into a basal cell carcinoma after a latency period of 30 years. We treated our second case in 2004 with radiotherapy; the patient will be having 5 surgical interventions as a follow up. Our third case, a carcinoma similarly located with the second one. These three cases have, as a particularity, a high recurrence rate. From the latest studies of medical literature on BCC it shows that the recurrence rate is present on one third of the patients but no more than twice. **Results:** The data gathered from the histopathologic exam confirmed a common diagnosis in all three cases: the presence of BCC with the following characteristics: basaloid cells with severe cytonuclear atypia located on the dermal level, cytoplasm in a low amount hyperchrome and pleomorphic nucleus and numerous mitoses. The three patients will benefit from regular check-ups every three months and surgical treatment. **Conclusions:** Considering our three cases of BCC and the data for their recurrence missing in the medical literature, we can wholeheartedly admit the importance of early diagnosis in Basal Cell Carcinoma and controlling patients for stable periods of time to stop recurrence.

Keywords: recurrence, basal, cell, carcinoma

ACUTE POST-PARTUM PANCREATITIS IN A 20-YEAR-OLD PATIENT

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Background: Acute post-partum pancreatitis (APPP) is a rare, life-threatening disorder that develops within 10 months after delivery. The development of acute pancreatitis related to pregnancy has an incidence rate of 3 in 10000 according to Sunil Kumar Juneja et al, the rarity of this event raising in the peripartum period. **Objective:** Highlight the importance of a proper diagnosis and treatment of APPP regardless of the rarity of this condition. **Material and methods:** We report the case of a 20-year-old, uniparous patient admitted at around 3 months post-delivery presenting nausea, vomiting and abdominal pain. While initial signs pointed towards an acute viral hepatitis, serological tests infirmed the presumed diagnosis and she was admitted in our service to be treated for an acute cholecystitis and acute edematous pancreatitis (based on ultrasound and CT scan). A retrograde laparoscopic cholecystectomy that also showed an edematous cephalic extremity of the pancreas was performed, and a subhepatic drainage tube was installed. Two weeks later, the patient was readmitted through the emergency department accusing nausea and vomiting and the diagnosis of acute pancreatitis was applied, the patient also presenting post-cholecystectomy syndrome, hepatomegaly and jaundice. At this point, a conservative approach was considered and a treatment with spasmolytic, antialgic and antibiotal medication was started. The patient showed a favorable evolution, only to be readmitted for a third time two weeks later accusing again nausea, vomiting and diffuse abdominal pain. An abdominal CT-exam was performed showing necrotic acute pancreatitis with multiple pseudocyst therefore imposing an exploratory laparotomy, drainage of the abdominal abscesses and multiple sequestrectomies. Seven drain tubes were installed. **Results:** The patient was left with an epigastric laparostomy, showing a favorable evolution and is due to return for dressing change. **Conclusions:** APPP is a life-threatening condition that can be easily miss-diagnosed and requires special treatment to prevent complications.

Keywords: post-partum acute pancreatitis, cholecystitis, drainage

THE IMPORTANCE OF MULTIDISCIPLINARY APPROACH IN A CASE OF OVOTESTIS

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Background: Ovotesticular disorder of sex development is known as the presence of both testicular and ovarian tissues in the same internal reproductive organ **Objective:** The purpose of this paper is to present the case of a patient with ovotesticular disorder of sex development and the key role of multidisciplinary approach **Material and methods:** The patient is a 2 year old male diagnosed with bilateral cryptorchidism and palpable testis on the right side only. He underwent an orchidopexy surgery for the right undescended testicle. During the procedure, surgeons found an agenesis of the right deferent duct. An exploratory laparoscopic procedure was performed which showed: a vascular pedicle distributed to an ovoid structure, devoided of the albuminous tunic; the ovoid structure was connected to a tubular structure and both were included in a transverse peritoneal fold that is directed towards the posterior bladder wall; another structure, behind the bladder, that was continued with a structure similar to a deferent duct. During laparoscopic surgery the vascular pedicle was mobilized in the scrotum, along with the structures attached to it, a procedure similar to an orchidopexy **Results:** Biopsy showed fragments of ovarian stroma but without ovarian follicles. The genetic analysis revealed a 47,XYY karyotype. No pathological signs were found at the endocrinological examination, nor the specific biochemical tests. Further workup must be performed, including an MRI, a second opinion for the histopathological diagnosis and the ovotestis removal **Conclusions:** Infancy represents a window of opportunity and doctors should initiate the specific treatment as soon as possible. Furthermore, because of the complexity of this disease itself, a medical team must gather around in a multidisciplinary teamwork in order to establish the appropriate protocol of diagnosis and treatment, including a second examination of the biopsy, surgical removal of the ovotestis and if needed, psychological support in the future

Keywords: ovotestis, multidisciplinary approach, infancy

SLIPPED CAPITAL FEMORAL EPIPHYSIS LEADING TO SECONDARY HIP OSTEOARTHRITIS IN A 15-YEAR-OLD

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Background: Slipped Capital Femoral Epiphysis is a rare osteonecrosis disorder characterized by unilateral or bilateral disruption of the capital femoral physis with varying degrees of posterior epiphysis translation and simultaneous anterior metaphysis displacement. Common presenting symptoms are: groin and thigh pain, knee pain and limping. Physical exam shows limp, decreased hip motion, abnormal leg alignment and weakness. The most severe complication of SCFE is secondary hip arthritis occurring around the fourth or fifth decade of life that needs total hip arthroplasty as surgical treatment. **Objective:** This case presentation aims to present the treatment difficulties of secondary hip osteoarthritis in an obese adolescent patient **Material and methods:** We present you a case of a 15-year-old boy with no history of endocrine pathology, examined in the Orthopedic Clinic of Tîrgu Mureş on 21.02.2020, who presented with a 4 cm shortening of the right leg and severe limp. He developed first symptoms after falling on ice and was diagnosed with SCFE a few months later after a worsening of symptoms. He underwent three unsuccessful surgeries for SCFE and developed secondary hip osteoarthritis. Radiological exam shows femoral head destruction, joint space narrowing, limb shortening of 3 cm, pelvic asymmetry, necrosis with unfavourable evolution. **Results:** The fact that a total hip arthroplasty is needed, which is not the speciality of a pediatric orthopaedist, and legal boundaries that prevent an adult orthopaedist from doing surgery have made treatment impossible at this moment. **Conclusions:** SCFE has a very bad prognostic even with adequate treatment so close follow-up is required for these patients. If the patient develops hip osteoarthritis we need clear surgical indications for treatment and legal backing up for adult orthopaedists to perform surgery.

Keywords: total hip arthroplasty, SCFE, hip osteoarthritis, teenage patient

PRIMARY MUSCULOSKELETAL HYDATID DISEASE – CASE PRESENTATION

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Background: Hydatid disease is caused by an infestation with Echinococcus. Main localizations of hydatid cysts are the liver and the lungs, but in very rare cases it affects the musculoskeletal system. **Objective:** The aim of this case report is to describe the management of primary musculoskeletal and bone hydatosis and to address the treatment options in this very rare disease. **Material and methods:** We present the case of a 64 years old patient, scavenger, brought to the ER with signs of intestinal occlusion following a left incarcerated inguinal hernia. The CT scan confirmed the diagnosis, but surprisingly revealed the presence of multiple cystic formations, located in the left retroperitoneum, left iliopsoas muscle, associating bone destruction of the left coxal bone, sacrum and femoral head. Cysts were also found at the level of the left thigh, left testicle, but showing no liver or pulmonary involvement. Emergency surgery was performed for the treatment of the incarcerated hernia and the tumors at the level of the thigh were biopsied. Intraoperative aspect of the tumors resembled the aspect of hydatid cysts. **Results:** Histopathology report confirmed the diagnosis of muscular hydatid disease and albendazole therapy was initiated. The postoperative evolution was surgically uneventful with patient discharge after 20 days of hospitalization. On follow up, after a long course of albendazole, the retroperitoneal cystic formations show a decrease in size. The patient refused further surgical treatment, allowing only medical treatment. **Conclusions:** Faced with any type of cystic formations, regardless of localization, hydatid disease must be taken into account. In an emergency setting, primary treatment of the hydatid disease is not possible. Long term treatment and further surgeries can be required for proper case management, especially for unusually located hydatid disease.

Keywords: Hydatid cyst, Musculoskeletal hydatosis, Management

MANAGEMENT OF A AVF DISFUNCTION

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Background: Vascular access dysfunction is one of the most important causes of morbidity and mortality in patients undergoing hemodialysis. Arteriovenous fistula failure is a multifactorial process resulting from the combination of technical difficulties, vein immaturation, inflammation and neointimal hyperplasia. **Objective:** To describe a successfully treated fistula failure with vein immaturation and dysfunction, by a surgical judgment that led to the use of a complication as an asset. **Material and methods:** We present a 31 years old patient with end stage chronic kidney disease, spastic tetraparesis and amyloidosis, who was sent from the department of nephrology for an arteriovenous fistula that may facilitate her treatment. A distal radio-cephalic FAV was successfully performed. A few month later the patient comes back with a vascular access dysfunction by vein immaturation and a marked development of a collateral vein of the Cephalic Vein. **Results:** She underwent a reintervention with exploration of the left radio-cephalic AV fistula with it's reconstruction by reversing the well-developed collateral of the cephalic vein through a terminal-anastomosis and angioplasty with an enlargement patch from the cephalic vein. The second intervention has a favorable evolution, without post-operative complications and it becomes possible to use the new fistula for hemodialysis. **Conclusions:** According to studies, the radio-cephalic AV fistula is the most recommended type of intervention that enhances hemodialysis, despite the high rate of complications and need of reintervention. Physicians should be persistent in treating these cases even in complex situations because good outcome is possible and makes the life-saving treatment accessible to patients.

Keywords: arteriovenous, fistula, Vascular surgery, dialysis

STAGE II/III PELVIC ORGAN PROLAPSE

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Background: Pelvic organ prolapse is descent of the pelvic organs into the vagina, often accompanied by urinary, bowel, sexual, or local pelvic symptoms. It may affect over half of women aged 50 to 59 years. The incidence of genital prolapse is difficult to determine, as many women do not seek medical advice. Risks of genital prolapse increase with advancing parity and age, increasing weight of the largest baby delivered, and hysterectomy. **Objective:** The aim of this study is to present the surgical management of pelvic organ prolapse using an self-adhesive mesh. **Material and methods:** We present the case of a 63 years old patient admitted in Surgery Clinic 1 of the Emergency Clinical County Hospital of Târgu Mureş. On admission she presented umbilical hernia, a bulky pseudotumor in genital region associated with acute urinary retention and fecal incontinence. Gynecological examination revealed a grade II/III pelvic organ prolapse with cervical elongation, cysto-recto-enterocele. **Results:** After a proper preoperative preparation a total extracapsular hysterectomy with bilateral adnexectomy (Wuart procedure), superior colpectomy and presacral recto-colpopexy using ProGrip™ Self-Fixating Mesh, retropublic cystopexy is performed. **Conclusions:** Using the self-fixating mesh such as ProGrip™ Self-Fixating Mesh is a feasible alternative of the surgical treatment of pelvic organ prolapse.

Keywords: self-fixating mesh, pelvic organ prolapse, acute urinary retention

THE FORENSIC AUTOPSY FOLLOWING THE THROMBOSIS OF THE PORTAL AND THE SUPERIOR MESENTERIC VEIN - CASE REPORT

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Background: Up to 25-35% out of all of the portal vein thrombosis cases appear due to the presence of hepatic

cirrhosis. Most often, the thrombosis of the portal vein is a silent pathology. Although, in some cases the patients can present symptoms like abdominal pain or eso-gastric varices. When this disease represents a complication of the hepatic cirrhosis, there is no curative treatment. When the happening of the disease is not a complication, the thrombolysis is the preferred treatment. **Objective:** To prove that portal thrombosis can be a cause of death.

Material and methods: The forensic autopsy with the removal of the visceral fragments, for the histopathological examination, of a 70 year old woman, following her death that took place at the Institute of Cardiovascular Diseases and Transplant, where she was previously hospitalized because of cardiogenic and hemorrhagic shock, primitive biliary cirrhosis, third grade esophageal ulcers and portal congestive gastropathy and diabetes. After 4 hours of mechanical ventilation, she developed metabolic acidosis, fact that led to her death. **Results:** Following the internal examinations of the corpse, we found calcified atheromatous confluent deposits in the coronary arteries, narrowing the lumen of the vessel up to over 75%. The superior mesenteric vein presents a thrombus of 7 cm in length, with a matte look, adherent to the intima layer of the vessel, stretching itself inside the portal vein, obstructing its lumen. The histopathological results using hematoxylin eosin coloration confirm the presence of the calcified atheromas inside the coronary arteries and the intraluminal thrombus obstructing the two arteries.

Conclusions: The death of this 70 years old patient has been a non-violent one and it happened due to the polymetabolic disorders, following a primitive biliary cirrhosis, on a patient suffering from portal and superior mesenteric veins thrombosis, having a severe cardiovascular pathology added.

Keywords: autopsy, thrombosis, portal vein

ENDOSCOPIC MANAGEMENT OF A NEGLECTED URETERAL STENT-CASE REPORT

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Background: The ureteral JJ stent is one of the most frequently used medical devices in the obstructive urological pathology. In some cases it leads to multiple complications therefore it should be removed or changed, as per manufacturer's indications. **Objective:** The objective of this paper is to present the case of a patient with a calcified right JJ stent and to accentuate the importance of medical advice and postoperative follow-up. **Material and methods:** The patient is a 73 years old woman with a medical history of chronic renal failure, solitary right kidney (left nephrectomy for renal tumor pT2b performed 6 years prior), a complete calcified right ureteral stent (put in place 3 years ago) and multiple ESWL procedures. The patient came with the accusation of right-side lumbar pain. As a result of clinical and paraclinical (Intravenous Urography) investigations, the diagnosis was: calcified right JJ stent, post-ESWL residual lithiasis on the proximal part of the stent (approximately 5x5 mm) and lithiasis on the distal part of the stent (3x3 mm). **Results:** A Punch bladder lithotripsy was performed in order to remove the stent but only the distal part was successfully removed. After the preoperative care in peridural anesthesia it was performed a percutaneous nephrolithotomy which identified an accentuated edema at junctional level and renal pelvis and multiple struvit-like lithiasic fragments. The anterograde removal of the right stent and lithiasic fragments was performed. Some residual lithiasic fragments were present. The evolution was favourable, the diuresis was kept through percutaneous nephrostomy, with the indication of changing it after every 6 weeks. **Conclusions:** Considering the multiple complications that may arise in case of ignoring medical advice on the recommended stent change intervals, the patient's medical state may worsen, increasing the risk of infections, dislocation and acute renal failure as a result of calcification.

Keywords: JJ stent, renal lithiasis, nephrostomy, percutaneous nephrolithotomy

LAPAROSCOPIC CHOLECYSTECTOMY: CONVERSION RATE AND MORTALITY IN EMERGENCY

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Background: Laparoscopic cholecystectomy represents the "gold standard" in symptomatic cholelithiasis. The management of acute cholelithiasis in emergency is associated with increased risk of complications and a higher rate of conversion to open approach. **Objective:** The aim of this study is to determine the conversion rate and the

mortality associated with laparoscopic cholecystectomy in Surgery Clinic 1, Emergency Clinical County Hospital of Târgu Mureş. **Material and methods:** We conducted a retrospective, descriptive study at Surgical Clinic 1, Emergency Clinical County Hospital of Târgu Mureş between January 2015- December 2019. We included in study all the patients admitted to Surgery Clinic 1 in emergency. **Results:** A total of 237 patients were included in the study. The conversion rate was 7.12% and the mortality was 2.9%. **Conclusions:** The conversion rate based on literature data was acceptable, these ranged up to 30% in emergency. The mortality of the studied group was due the associated pathology.

Keywords: conversion rate, laparoscopic cholecystectomy, mortality

TRAUMATIC MULTI-FINGER NECESSITY AMPUTATION AFTER A DOMESTIC ACCIDENT

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Background: Upper extremity amputations could have a variety of etiologies like vascular diseases, malignancy, infections and traumatic accidents (more then 80% of UE Amputations). Hand injuries are common skeleton trauma and account for 28% of musculoskeletal conditions. They may produce life-long disabilities, affecting daily living and the ability to work. **Objective:** The purpose of the study is to present the right attitude in the management of the multi-finger amputation which is based on strong collaboration of the medical team. **Material and methods:** We report the case of a 73 year-old patient, who comes to the emergency room with a massive bleeding on the left hand due to a domestic accident. All the trauma patients are treated in a similar way. So, the first priority was to control major bleeding because the radial and ulnar artery damage caused a hemorrhagic shock. The progress of microsurgical techniques allowed cooperative efforts between orthopedic , vascular surgeon and plastic surgeons to act as soon as possible to realize the amputation of necessity after the traumatic one. **Results:** Postoperative care of the patient showed a healing process assisted by the surgeon and physiotherapist. The medical team will try to replace the lost hand with a bionic prosthesis . Although there are many people who have upper extremity amputation, only half of the amputee population choose to wear prosthesis. The use of hand prosthetics has impressive advanced in terms of its aesthetic and functional properties. **Conclusions:** This type of cases requires a fast interdisciplinary approach of a medical team made up of orthopedists, vascular surgeons and plastic surgeons. Also, prosthesis increases the chances of social and professional reintegration of these patients.

Keywords: Trauma, Amputation, Prosthesis, Hand

SIMULTANEOUS SURGICAL TREATMENT OF A SUPERIOR RECTAL NEOPLASM AND AN UMBILICAL HERNIA IN AN ELDERLY PACIENT

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Background: Rectal cancer is a disease in which malignant cells form in the tissues of the rectum. An umbilical hernia occurs when part of the intestine sticks out through the opening of the abdominal muscles, they are most common in infants, but they can affect adults as well. **Objective:** The objectives of this study are to emphasize the importance of knowing the specific protocols for surgical treatment, due to these aspects obtaining the best results for the patient. **Material and methods:** We present a case of a 64 years old male, known with upper rectal neoplasm stenosis and with umbilical hernia. He presents in our department accusing gastrointestinal disorders and weight loss. The current symptoms started a year ago, having a progressive evolution . The following procedures are performed : exploratory laparotomy, recto-sigmoid resection with mechanical colo-rectal anastomosis (T-T), adeziolysis, surgical treatment of umbilical hernia and drainage. **Results:** The patient presents a favorable postop evolution with bowel movement resumption on the 5th day and clean surgical wound. The patient is discharged at 2 weeks following surgery in general good health. **Conclusions:** Applying the new surgical treatment protocols adapted to each individual case of superior rectal neoplasm and umbilical hernia, we obtain a favorable postop evolution.

Keywords: Superior rectal neoplasm, Recto-sigmoid resection, Umbilical hernia

COMPLEXITY OF CHRONIC PSEUDOTUMORAL PANCREATITIS MANAGEMENT SECONDARY TO CHRONIC LITHIASIS CHOLECYSTITIS

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Background: Chronic lithiasis cholecystitis is a pathology caused by the accumulation of calculi of different dimensions inside the gallbladder. Chronic pseudotumoral pancreatitis represents a pathology which is characterized by prolonged inflammation and neoplasia. **Objective:** The objectives of this study are to emphasize the importance of knowing the specific protocols for surgical treatment, due to these aspects obtaining the best results for the patient. **Material and methods:** We present a case of a 73 years old male, taken to our department by transfer from the gastroenterology clinic, known with : colon cancer, chronic alcoholism, presenting nausea and vomiting. An abdominal ultrasound shows a relaxed cholecyst and a tumor formation (cca. 4*3 cm) with compressive effect on mesenteric vessels, dilated Wirsung duct, visible Santorini duct, dilated CBP. The following procedures are performed : Triple pancreatic-biliary-digestive bypass, adeziolysis, cholecystectomy, pancreatic-jejunal L-L anastomoses, hepatic-jejunal L-L anastomosis, gastro-entero anastomosis on Wofler ansa, Braun fistula and drainage. **Results:** The patient presents a favorable postop evolution with bowel movement resumption on the 4th day and clean surgical wound. The patient is discharged at 2 weeks following surgery in general good health. **Conclusions:** Chronic lithiasis cholecystitis should be treated surgically by laparoscopic cholecystectomy as soon as possible from the moment of diagnosis to avoid pancreatic side effects that require open surgery.

Keywords: Chronic pseudotumoral pancreatitis, Triple pancreatic-biliary-digestive bypass, Chronic lithiasis cholecystitis

PRESERVING THE SPHINCTER FUNCTION IN LOW RECTAL CANCER SURGERY: WORTH TRYING? – CASE REPORT

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Background: Colorectal cancer (CRC) is the third most common cancer in males and the second in females, according to World Health Organization (WHO). In Europe, Romania stands amongst the top countries. Even though the neoadjuvant oncological therapy plays its very important role, the surgical treatment remains "the key" in the management of low rectal cancer. **Objective:** The aim of this report is to present a case in which we succeeded to preserve the sphincter function in a patient with low rectal cancer, with a good functional and evolutive outcome. **Material and methods:** We present the case of a 70 years old male patient, known with insulin dependent diabetes, hypertension and ischemic heart disease with a coronarian stent, who came, in emergency conditions, complaining about: diffuse abdominal pain, meteorism and rectoragy. The rectosigmoidoscopy highlighted a partially stenosing, hemorrhagic tumoral formation at 10 cm from the external anal orifice. Clinically, it was even lower, the tumor being palpable at rectal examination. Thoracic and abdominal CT scan did not reveal any metastasis. **Results:** Instead of an abdominoperineal resection (APR), because the local conditions permitted, we succeeded to perform a very low anterior rectal resection (VLAR) with mechanical anastomosis. The postoperative evolution was favorable, without any early complications and a well-preserved contention function. The patient was discharged in the 7th postoperative day and histopathological examination stated a pT2N0M0, moderately differentiated (G2) adenocarcinoma, with tumor-free surgical margins. **Conclusions:** By respecting the oncological principles, VLAR has a good survival rate and even a lower local recurrence rate than APR. In our case, due to the preservation of the anal sphincter, with good functional outcome, it was worth choosing to perform a VLAR allowing an improved quality of life for the patient.

Keywords: low rectal cancer, low anterior resection, sphincter function

A PARTICULARLY RARE CASE OF PSEUDOMYXOMA PERITONEI

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Background: Pseudomyxoma Peritonei (PMP) is classified as a rare cancerous growth characterized by the progressive accumulation of mucinous or mucous secreting tumor cells within the abdomen and pelvis. Although its origin is usually the appendix, sporadically, tumors from other sites □ bowel, ovary, stomach or pancreas - can lead to it. PMPs don't disseminate via the lymphatic system or the blood stream, but grow and spread within the abdomen. **Objective:** Our purpose is to present a rare case of PMP which was preceded by a tumor located in the sigmoid colon. **Material and methods:** A 65-year-old male patient with a history of sigmoidian adenocarcinoma, surgically removed in November 2010, presented in our clinic with severe pain in the right flank and iliac fossa, which radiated in the umbilical area, a 38o C fever and a weak positive Blumberg sign. The following day, his state deteriorated. Neutrophilia and a rise in inflammatory markers (C-reactive protein at 58 mg/l) were found. A laparoscopic appendectomy was performed for an intraoperative diagnosis of Retroileal Retrocecal flegmonous appendicitis. The removed appendix was sent for histopathological examination. **Results:** The histopathological examination revealed a low-grade mucinous appendicular neoplasm with clean surgical margins. **Conclusions:** Although PMP often starts at the appendix, in rare circumstances, such as in the case presented above, the origin can be the sigmoid colon. However, despite the fact that the patient presented with a rare and particular form of an already rare malignancy, the outcome was satisfactory, with discharge and favourable evolution.

Keywords: Pseudomyxoma Peritonei,, Mucinous appendicular neoplasm, PMP

THE EVOLUTION OF A PATIENT WITH STERCORAL PERITONITIS CAUSED BY THE PERFORATION OF SIGMOID DIVERTICULOSIS

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Background: Sigmoid diverticulitis defines an inflammatory process of the diverticula that can be found in the colon and which represents a herniation of the mucosa in the lumen of the sigmoid area. According to a study, the incidence of diverticulitis is 10% to 25% in patients that present diverticulosis. A common complication can be like in this case, abscess formation and perforation. **Objective:** The aim of this study is to present the importance of the correct management of the postop complications of the perforation of sigmoid dierticulosis operated at an obese patient. **Material and methods:** We present a case of a 59 years old patient, known with bronchial asthma, obesity, iliac anus stenosis which after the Hartman I surgical procedure that was made for the perforation of sigmoid diverticulosis, complicates with a blocked evisceration. Because of this unwanted side effect, a split thickness free graft was made in order to reconstruct the abdominal wall. Gastric sleeve was also performed and the patient lost 35kg. The patient returns to our clinic, accusing diffuse abdominal pain, disorders of intestinal transit, a stenosis at the level of the colostoma and postop eventration. A Hartman II procedure and a surgical correction of the eventration is made, with plasty of the abdominal wall using polipropilen mesh which has a supraaonevrotic attachment. **Results:** The patient has a favorable postop evolution with the resumption of the intestinal transit, afebrile, hemodynamically and respiratory stable. **Conclusions:** The patients known with bronchial asthma and obesity, complicates the evolution of such a case, being necessary multiple surgical fireworks for solutioning it.

Keywords: sigmoid dierticulosis, Hartman I, Hartman II, split thickness free graft

WHO'S BAD? COCAINE AND THE CONGENITAL HEART MALFORMATION.

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Background: Anomalous aortic origin of the right coronary artery represents an unusual anatomical configuration of the heart vascularization with multiple associated side effects such as sudden cardiac death. The symptomatology can appear because of the compression that can be made on the artery which like in this case, is situated between aorta and pulmonary artery and has an intramural segment as well. **Objective:** The correlation between the acute state of the patient (NSTEMI) and the congenital malformation of the coronary vascularization required an initial management of myocardial infarction on the short term, and the correction of the abnormal anatomical origin of the right coronary artery on the long term. **Material and methods:** We expose a case of a 31 year old man with non-ST elevation myocardial infarction (NSTEMI) due to an intake of a cocaine dose which resulted in a vasospasm effect. Further investigation found an anomaly of the aortic origin of the right coronary artery, which emerges above the left coronary cusp at the sinotubular junction and presents an inter-aortico-pulmonary pathway. Because of the altered state, the patient underwent surgery. **Results:** The procedure needed to be done using extracorporeal circulation; the right coronary artery was reimplanted directly in the right coronary sinus with an advantageous cardiac perfusion and with a good prognosis. After surgery, the patient needed a cure for three months with antiplatelets. **Conclusions:** This specific type of congenital malformation presents a silent manifestation with serious life threatening clinical condition and the surgical therapy seems to be the unique solution of managing these patients.

Keywords: Cocaine, Vasospasm, NSTEMI, Congenital

THE INCIDENCE OF THE ACUTE APPENDICITIS IN SURGICAL EMERGENCIES IN SURGERY CLINIC 1 AT COUNTY HOSPITAL IN TÂRGU MUREȘ

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Background: Acute appendicitis is a leading cause of surgical admissions for abdominal pain in many emergency departments. **Objective:** The aim of this study was to determine the trends in incidence of acute appendicitis in Surgery Clinic 1 at the Emergency Clinical County Hospital of Târgu Mureș between January 2014 and October 2019. **Material and methods:** We have conducted a retrospective, descriptive study involving 591 patients hospitalized in Surgery Clinic 1 at the Emergency Clinical County Hospital of Târgu Mureș. In order to observe the incidence of the disease it was necessary to analyze the observation sheets, particularly age and sex, the hospitalization stay, incidence, and seasonal variation, paraclinical data, interventions and complications of acute appendicitis. **Results:** Following the results, the peak of incidence was in the 20-30 year age group, with the incidence of male gender of 51,27%. The yearly incidence of acute appendicitis in our clinic was among 100 cases/ year with a decrease in the last year and a high percent in summer season. We had 81,90 % laparoscopic approaches, 18,10% laparotomies and in 31 cases was necessary to use conversion to the open procedure. The mean post-operative hospital stay was 3 days and the mean operative time was 70 minutes. Due to the associated morbidities a total of 6 deaths was registered in the studied group. **Conclusions:** In Târgu Mureș acute appendicitis is upheld a common disease that occurs in all age groups of both sexes. Males are more affected than females. Complication rates of the disease are decreasing most likely due to the increase of laparoscopic interventions and evolving of paraclinical and imaging findings. This may reflect a change in the population structure and the improved access to the health care system.

Keywords: incidence, appendicitis, acute

A CASE OF A YOUNG-AGE POLYTRAUMA SURVIVOR: SUCCESSFUL MANAGING IN A COMPLEX INTERACTION OF MULTIPLE INJURIES AND COMPLICATIONS

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Background: The multidisciplinary approach of polytrauma has challenging task the survival followed of minimizing the psycho-cognitive, functional and physical sequels assuring, as much as possible, a quality life. A polytrauma outcome is directly proportional with the severity of the injuries and the traumatic score. **Objective:** To underline the importance of absence of pathological clinical conditions and the young-age in a complex, 2,5 months, rehabilitation after a severe car accident. **Material and methods:** A 17-year-old male, without associated clinical conditions, who has suffered a car crash with subsequent road projection, has been admitted with acute abdomen (multiple organ hematoma, retroperitoneal and peritoneal collections, liver and kidney laceration); CCT (CSF fistula, cranial fracture, pneumocephalus, cerebral edema) that was followed up by intraparenchymal hemorrhage with brainstem compression; skeletal injuries (Tile T3 pelvic fracture with active hemorrhage, multiarticular pelvic disjunction, femur and humerus fracture, clavícula and 3 ribs fracture); thoracic trauma (pneumothorax, bilateral contusions) and a massive gluteal Morel-Lavallee hematoma. The patient firstly underwent advanced trauma life support (ATLS) and damage control surgery (DCS) continued by the successful treatment of other critical conditions. Due to complex traumas and solving postponement, intervened complications as: epidural abscess, chorea, posttraumatic ARDS, acute renal insufficiency KDIGO II, severe anemia, coagulopathy, hypoxic hepatitis, osteomyelitis, eschar, sepsis with SIRS and MODS. The trauma team consisted of multidisciplinary implication of County Clinical Emergency Hospital of Targu Mures, Timisoara and Emergency Hospital "Casa Austria", who assessed and applied a relatively rapid and a structured approach in order of a survival setting. **Results:** The patient survived and has obtained a good outcome with reduced physical, neurological and functional sequels, reported to the advanced post-traumatic critical state. **Conclusions:** The survival is highly influenced by the patients' age, the health condition and the strictly applied rules for the management of complex and complicated polytrauma.

Keywords: polytrauma, multitrauma survivor, complications

OPTIC DISC PIT MACULOPATHY

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Background: Optic disc pit is a rare congenital defect of the optic nerve head. It can further be complicated by macular detachment hence resulting in visual loss. It is caused by incomplete closure of fetal fissure. **Objective:** The aim of the paper is to provide ways of treatment for exudative maculopathy with Subretinal (neurosensory detachment) due to optic nerve pit. **Material and methods:** A 39-year old Caucasian male patient presented himself at the Ophthalmologist complaining of progressive visual impairment since the last 6 months. The patient exclaimed that the vision loss was not painful. Furthermore, a Fundus photography was performed using specialized Fundus Camera. The Optical Coherence Tomography (OCT) was done using Zeiss Stratus OCT. **Results:** The Right and Left eye Visual Acuity (VA) was 1.0 and 0.2 respectively. It was discovered that the patient had unilateral temporal optic nerve pit in the Left eye. On OCT Imaging there was a continuous submacular fluid with neurosensory detachment with fluid entering Optic disc pit. **Conclusions:** In the case mentioned above optic disc pit maculopathy suggests a Cerebrospinal Fluid origin. According to the scientific literature the solution to this fluid migration into the macula from a pit defect is a combination of Laser/ Vitrectomy/ Gas Tamponade therefore called as Triple treatment.

Keywords: Optic Disc Pit, Maculopathy, Optical Coherence Tomography

INJURY SEVERITY SCORE IN LIVER TRAUMA

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Background: The liver is one of the most frequently injured intra-abdominal organs in abdominal trauma, although it is relatively well protected by the surrounding structures. Morbidity and mortality of patients with liver trauma are mainly due to associated lesions of other organs, uncontrolled internal bleeding and the development of late complications. Associated with these liver traumas, most of the time they are multi-dimensional trauma: cranial, thoracic, abdominal, etc. The appearance of the traumatic score systems confers a degree of prediction regarding the evolution of the patient's condition. **Objective:** The purpose of the paper is to analyze the mechanisms of production of liver trauma and to establish the correlation between traumatic scores and mortality. **Material and methods:** The patients included in this retrospective study are patients admitted to the General Surgery I Targu-Mures between 2013-2018. The processed data were obtained from the observation sheets: age, sex, diagnosis, the main organ affected, the operation performed, days of hospitalization, mechanism of trauma production, ISS-Injury Severity Score. **Results:** The group included in the study has 304 persons, patients with abdominal trauma, with ages between 13 and 90 years old with an average of 46. Most of the patients included in the study were men 70.7% and only 29.3% women. 41.1% of patients also had liver trauma. Most of the traumas were caused by road accidents (35.5%). 41.6% of patients with liver trauma had ISS <16, 34.4% had ISS between 16-25, 15.2% had ISS 26-40 and 8.8% had ISS >40. 42.2% of patients had surgery. 14.4% of the patients with liver trauma died. **Conclusions:** ISS gives a degree of prediction regarding the evolution of the patient's condition.

Keywords: liver trauma, ISS, traumatic score

SURGICAL MANAGEMENT IN A 12 YEARS OLD PATIENT WITH OVARIAN TERATOMA

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Background: Teratomas are germ cell tumors usually composed of multiple cell types derived from one or more of the 3 germ layers. Teratomas can range from well-differentiated (mature), benign cystic lesions to those that are solid and malignant (immature). **Objective:** The purpose of this paper is to present the case of a very young patient with a giant ovarian teratoma whose evolution was complicated with an ovarian torsion. **Material and methods:** The patient is a 12 and a half year old girl who came in the Emergency Department of the HFME Hospital in Lyon, complaining of a high intensity abdominal pain appeared. She had no fever and her pain was associated with vomiting. The ecography confirmed a liquid intraperitoneal effusion blade with a voluminous cyst of 6 cm long axis developed at the expanse of the right ovary, with follicles projecting at the periphery. It was requested an MRI for confirmation, where we saw a larg right ovarian tumor which was 11 cm high and 7 cm anteroposterior diameter with an ovarian torsion around its own vascular pedicle(this is a surgical emergency due to the risk of necrosis if ischemia lasted for more than 6 hours). The left ovary was healthy, and also the appendix. **Results:** The surgery was performed in 2 main steps. The first one consisted in a laparoscopic surgery whose goals were exploring the tumor and twisting the ovary back to normal. The exploration showed an ovarian mass around 10 cm with a bloody peritoneal effusion. No peritoneal lesions were found. The resection of the tumor was done after a while using laparoscopy, doing also a right oophorectomy. **Conclusions:** When confronting with a massive pain in a children, it's very important to do all the paraclinic investigations in order not to confuse the source of the pain and to mess up the diagnostic.

Keywords: ovarian, teratoma, laparoscopic

ROBOTIC BED

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Background: Bedsores, also called pressure ulcers or decubitus ulcers, are injuries of the integument and the underlying tissue resulting from prolonged pressure on the skin. They most commonly occur in immobilized persons and often develop on skin that covers bony areas of the body such as the heels, ankles, hips and tailbone. **Objective:** The main purpose of the bed is to prevent and heal bedsores using kinetotherapeutic movements and to come in help of the medical staff. **Material and methods:** The main part of the bed is made from plastic ABS-anti shock material. The bed's dimensions are: 220 X 106 X 50/70 (with adjustable height). The mattress size is 195 X 90 cm. The backrest of the bed is also adjustable, having an inclination angle between 0 and 60 degrees. The bed is movable, built with 4 wheels Ø 150mm. The maximum weight allowed is 250kg. The bed is designed with two robotic arms, which are created in the shape of the foot. Functional principle: these arms function with the help of an electric motor (step by step), which makes the movements to be possible. **Results:** I kept track for three months of an immobilized patient, which couldn't change his center of gravity, to whom they appeared bedsores in the heels area. Initially this bed maintains the bedsores in their actual stage and stops their evolution in becoming a more dangerous stage. After all these procedures will begin their healing treatment. **Conclusions:** The bed is especially designed to become a help in the future medical technology and to prevent and heal this serious health problem.

Keywords: robotic arms, treatment, bedsores, kinetotherapeutic movements

SURGICAL TREATMENT FOR INGUINAL HERNIA - BETWEEN OPEN AND LAPAROSCOPIC APPROACH

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Background: Inguinal hernia is a frequent pathology encountered mostly in male patients. The management of symptomatic hernias requires a surgical repair. There are many surgical techniques used in inguinal hernia repair, from tissue suture procedures to "tension free", mesh repair procedures, using an open or a laparoscopic approach. **Objective:** The aim of this report is to evaluate the different techniques used in the treatment of inguinal hernias from the point of view of indications and postoperative evolution. **Material and methods:** We performed a retrospective observational study that included 242 patients admitted to Surgery I Department of the Emergency County Clinical Hospital in Târgu Mureş, between January and December 2019, and operated for inguinal hernia. Besides the demographic parameters related to patients, have been evaluated: the diagnosis according to the type of inguinal hernia, the surgical technique used, the duration of the intervention, the postoperative evolution and immediate complications and the hospital stay. All data were organized in an Excel database, were analyzed and statistically processed using Graph Pad Prism 6. **Results:** In the studied group of patients, the majority were men (89.66%), between 20 and 92 years of age. In 15 cases (6.19%) a bilateral hernia repair was practiced. A laparoscopic approach was used in 28.09% of cases (51.47% transabdominal preperitoneal (TAPP) technique and 48.52% totally extra peritoneal (TEP) repair). Low postoperative complication rates were encountered without statistically significant differences between open and endoscopic procedures. The length of hospital stay was shorter for the patients with laparoscopic surgery compared to those with an open technique. **Conclusions:** Considering the correct indication, both open and laparoscopic procedure of hernia repair, using a "tension free" technique, are viable options, with good postoperative outcome. The advantage of laparoscopic approach remains a more rapid postoperative recovery.

Keywords: inguinal hernia, hernia repair, laparoscopic procedure, "tension free" technique

INTRACYSTIC PAPILLARY NEOPLASM-

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Background: Intracystic papillary neoplasm is a preinvasive lesion of the gallbladder epithelium which is characterized by papillary growth . There are two types of ICPN-1 (low grade dysplasia) with early age onset, small tumor and a low level of CK20 expression in comparison with ICPN-2 (invasive carcinoma). Many studies have showed that CK20 expression grows parallel with the tumor progression. **Objective:** We thus observe the importance of the histopathological examination of each piece operators. In the case presented, two types of neoplasms are associated: papillary of the gallbladder and adenoma of intrahepatic bile ducts, the two having similar characteristics according to the literature. **Material and methods:** The 45-year-old patient, known with biliary lithiasis, presents herself in programming in the Surgery Clinic I charged with: pain in the right hypochondrial accompanied by nausea that have appeared insidious lately. Retrograde laparoscopic cholecystectomy is performed and intraoperatively decelerated the presence of a liver tumor formation in the Ivb segment with a size of approximately 3x3 cm for which liver biopsy was performed. **Results:** Histopathological result from the operative part (cholecyst) highlights intestinal-type intracystic papillary cancer with high-grade intraepitelial neoplasia, having positive immunomarker for CK20, but without interested in the edge of resection and a lymphonode with reactive follicular hyperplasia. Liver biopsy, evidences the presence of an adenoma of intrahepatic bile ducts. Postoperative angio-MRI was performed without dececing other macroscopic changes in the intra-abdominal organs. The patient was directed to the oncology clinic, where annual control was recommended. **Conclusions:** ICPN is a preinvasive neoplastic neoplastic of the gallbladder and can be accidentally diagnosed, as is the case with our patient, who does not raise any clinical-paraclinical suspicion on this diagnosis.

Keywords: Gallbladder, Preinvasive, Oncologic, Adenoma

RISK FACTORS ASSOCIATED WITH DEVELOPMENT OF MALIGNANT LARYNGEAL CANCER IN THE TOTAL LARYNGECTOMY PATIENT GROUP

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Background: According to the World Health Organization (WHO), laryngeal cancer represents 2% of all malignant tumors. The main risk factors for developing laryngeal cancer includes tobacco use, alcohol abuse, male gender, age over 65 and gastroesophageal reflux disease (GERD). **Objective:** The objective of this study is to classify the well-known risk factors and to search for new risk factors, or conditions that raise the possibility of developing laryngeal cancer. **Material and methods:** We performed a retrospective study on 66 patient cases who all underwent total laryngectomy. The data was collected from database registries and observation sheets from the Department of Otorhinolaryngology and Head & Neck Surgery, University of Debrecen, Hungary, between 2009 and 2019. We analyzed the age, the gender, the tobacco usage, the alcohol consumption, GERD, the lesser studied presence of other malignant tumors, and the positive family history for malignant neoplasm. **Results:** As we have thought, the main risk factors for developing laryngeal cancer were present in our patients group. These were: smoking, out of 52 males 43 (82.70 %), and out of 10 females 9 (90 %) used tobacco, male gender, 86.36 % were man and 14.92 % were women, the mean age was 67, the alcohol consumption was present in 12.12% of the cases, and the GERD was present in 9.09%. Out of 66 patients 24.24% were diagnosed with other malignant tumors and 21.21% of patients had a positive family history of malignancy. **Conclusions:** Most of the risk factors which raises the possibility of developing laryngeal cancer are due to an unhealthy lifestyle. Furthermore besides the known risk factors we have to always search for other factors whose influence is minimal on the development of tumors, but together with other risk factors they can aggravate the outcome of the cancerous disease.

Keywords: laryngeal cancer, risk factors, total laryngectomy

PRE- AND POST-SURGERY DUCTUS-DEPENDENT AORTIC COARCTATION

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Background: Coarctation of the aorta is viewed as a complex cardiovascular disorder with life-long implications that can persist even after initial correction of the aortic obstruction(long-term endothelial-dependent and independent reactivity of arteries, elevated risk of systemic hypertension, early coronary artery disease). The clinical presentation of coarctation also varies, ranging from heart failure and cardiogenic shock in the newborn to asymptomatic systemic hypertension or a murmur in an older children. **Objective:** The aim of this paper is to provide a clear view of the evolution of patients with ductus-dependent aortic coarctation and to present certain aspects related to this pathology. **Material and methods:** In our retrospective study we reviewed all newborns diagnosed with ductus-dependent aortic coarctation within the Pediatric Cardiology III Clinic of IUBCVT Targu Mures during January 1st 2014-December 31st 2019.We used the following inclusion criteria: all newborns or infants <4 months, hospitalized in the Pediatric Cardiology III clinic, during the years 2014-2019, who were diagnosed with ductal-dependent aortic coarctation, with or without associated pathology. **Results:** We reviewed 59 newborns for the study period of 6 years, of which 25 had prenatal diagnosis of coarctation. There were 37,28%(n=22) girls and 62,72%(n=37) boys with an average age of 28 days and an average weight of 3169 grams. There were 55 cases with complex coarctation and 5 cases with simple coarctation. After the correction of aortic coarctation 45,76%(n=27) of cases remained with residual systemic hypertension, 42,37%(n=25) of cases remained with residual pulmonary hypertension and 67,71%(n=37) of cases remained with a residual aortic gradient. Long-term, 11,86%(n=7) of cases presented recoarctation. **Conclusions:** Aortic coarctation has a significant influence on the newborn and infant wellbeing. Advanced maternal age, small birth weight, no prenatal diagnostic and cardiogenic shock as a form of onset are significant risk factors for a low prognosis.

Keywords: aortic coarctation, congenital heart disease, ductal dependent

POSTER - NON - SURGICAL

BULLYING AND ITS IMPACT ON THE MENTAL HEALTH OF MIDDLE AND HIGHSCHOOL STUDENTS

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Background: The term "bullying" is defined as an aggressive physical and psychological behaviour targeted to a specific person or group of people, therefore it can happen in any kind of community (schools, jobs, family). According to "Salvați Copiii", 1 out of 4 Romanian students has been a victim to bullying and 7 out of 10 teachers can confirm the presence of the phenomenon in the school they teach in. **Objective:** This paper follows the bullying phenomenon in middle and high schools in order to assess its severity in relation to the types of bullying and the students' personal data (domicile, gender, grades etc.). Another objective is highlighting the connection between the types of abuse and mental disorders. **Material and methods:** The data was gathered using an online survey distributed to 7th to 12th graders from "Nicolae Bălcescu" Middle School, Brătianu Technological Highschool and "Gib Mihăescu" Highschool from Drăgășani. The questions are based on the YIPS (Youth Internalizing Problems Screener) and YEPS (Youth Externalizing Problems Screener) scales developed by Renshaw and Cook and the PECK (Personal Experiences Checklist) scale by Hunt et al. **Results:** There were 280 submitted responses, 49% from middle schoolers and 51% from highschoolers. Important connections were found between the severity of bullying and the students' domicile, relational-verbal bullying being the most common type. **Conclusions:** The types of bullying lead to internalizing and externalizing the problems which facilitate the development of anxiety and/or depressive disorders.

Keywords: bullying, anxiety, mental disorders, depressive disorder

PEDIATRIC HODGKIN LYMPHOMA: CASE SERIES

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Background: Pediatric Hodgkin lymphoma (HL) is one of the most curable malignancies. The long-term survival rate has significantly increased due to the various number of therapies. **Objective:** The main purpose of our study is to review the clinical symptoms of the patients and to evaluate the treatment outcome, survival rate and relapse rate. **Material and methods:** The retrospective observational study was conducted between 1st January 2015 and 31st December 2018 in the Pediatric Oncological Department of the "St. Mary" Children's Emergency Hospital Iași. **Results:** The study included 20 patients with an average age of 12 years and 3 months and a male/female ratio of 1.5:1. Related to age groups, 70% of the patients were over 10 years old. All the patients presented painless adenopathy involving the cervical area and 80% of them also had mediastinal mass shown on the CT scan. B symptoms were found in 25% of the patients and 15% of them had enlarged spleen and liver. Related to histological types of HL we found nodular sclerosis type at 45% of the patients, mixed cellularity at 30%, nodular lymphocyte predominant 20% and lymphocyte depleted at 5% of the cases. According to the Ann Arbor staging system, 40% of the patients were stage II, 50% stage III and 10% stage IV. Chemotherapy regimens used were ABVD, OEPA and BDVE-PC. Complete remission was achieved in 75% of the cases. The overall survival rate at 1 year is 100% and the overall relapse rate is 10%. **Conclusions:** The prognosis and the treatment options depend on clinical symptoms, diagnostic investigations and histological type. An earlier diagnose will improve the overall outcome.

Keywords: Hodgkin lymphoma, malignancy, pediatric

ECTOPIC PARATUBAL ADRENAL TISSUE INCIDENTALLY DISCOVERED: A CASE REPORT

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Background: Ectopic adrenal tissue (EAT) was first described by Morgagni in 1740 as yellowish nodules in the near vicinity of the adrenal gland. Since then, literature reports have described EAT mostly as an incidental finding during groin explorations, especially in male children, genitourinary tract being the most frequent site. EAT is rarely

observed in adults. **Objective:** To present a rare case of paratubal EAT, incidentally found in an elderly woman with invasive squamous cell carcinoma of the cervix. **Material and methods:** The case reveals a 64-year-old woman whose main complaint was a prolonged metrorrhagia with onset 4-5 months ago. The patient had a history of Hodgkin's disease and a C-section. The patient underwent a total hysterectomy with bilateral adnexectomy. There were no clinical features to suggest abnormal hormone production. **Results:** The histopathological examination revealed the presence of a squamous cell carcinoma completely occupying the cervix (max diameter-70mm), that infiltrated the isthmus and uterine body, with lympho-vascular invasion. The uterus presented 6 intramural and subserous nodules (5-25mm in diameter). The uterine appendages were apparently normal. The surprising fact about this examination was the presence of an adrenal gland rest, located next to the right fallopian tube, with no sign of neoplasia. **Conclusions:** The sporadic appearance of adrenal rests associated with gonadal structures can be explained by the common somatic origin of gonads and adrenal cortex. Although rare, the EAT diagnosis needs to be kept in mind, as it can be associated with various pathological conditions, such as hyperplasia or neoplasia, resulting in potential clinical complications. Rarely, EAT may be the only adrenals and accidental removal may cause adrenal insufficiency.

Keywords: ectopic adrenal tissue, fallopian tube, squamous cell carcinoma

BURN-OUT TUMOR OR HOW TESTICULAR CANCER SINKS INTO OBLIVION

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Background: Even though it is a well-known phenomenon, spontaneous regression of testicular tumors, also known as "burn-out" tumor, is a very unusual occurrence, only 70 cases being already mentioned in literature. The most likely histological type to burn out is choriocarcinoma, but regression is identified also in embryonal carcinoma. In most cases, the primary tumor is asymptomatic and patients are diagnosed due to metastatic complications. **Objective:** We aim to present the peculiar case of a 21 years old patient, with no previous medical history, presented in the Neurology Department with symptoms determined by cerebral metastasis, with no evidence of the primary tumor. **Material and methods:** The patient complained of headache and vomiting without nausea and the MRI scan showed an expansive unique lesion in the left frontal lobe, which was surgically excised. The histopathological exam of the excised lesion confirmed the diagnosis of choriocarcinoma, but the primary tumor was not identified. In the Oncology Department, the therapeutic decision was to start promptly with first-line chemotherapy and external whole-brain radiotherapy. The patient received 4 cycles of chemotherapy with Bleomycin, Etoposide, and Cisplatin. CT scan showed lung metastases, lung thrombosis and microcalcifications in the right testicle that were subsequently confirmed through PET CT as indicative of a residual primary testicular tumor that underwent the burn-out phenomenon. **Results:** After 4 cycles of chemotherapy, the response was assessed through CT and PET-CT scans which show a partial response, according to RECIST criteria. In this context, the treatment was switched to second-line chemotherapy: Paclitaxel, Cisplatin, and Ifosfamide with good therapeutic tolerance. **Conclusions:** The singularity of the burn-out tumors is that most patients are diagnosed in the metastatic stage of the disease. Keeping in mind that testicular cancer patients are often young and have a long life expectancy, identifying early detection methods for such cases is extremely important.

Keywords: testicular cancer, burn-out, choriocarcinoma

RADIOTHERAPY IN TREATING NON-HODGKIN LYMPHOMA: THE OTHER SIDE OF THE LEDGER

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Background: Radiotherapy is an effective locoregional treatment method for oncological patients and it's used for the purpose of depriving the cancer cell's potential of multiplication. Radiotherapy is a valuable method in the treatment of Non-Hodgkin Lymphoma patients and this method can be used alone or in association with other methods such as chemotherapy. Although it leads to an increase in life expectancy, it also has a myriad of side effects. Mediastinal irradiation can have important cardiovascular side-effects in the long run, such as atrioventricular conduction disorders, valvular disease, aortic arch calcification, and chronic pericardic effusion. **Objective:** In this case presentation, we want to draw attention to the cardiotoxicity associated with mediastinal

irradiation. **Material and methods:** We present the case of a 33-year-old female who arrives in the Cardiology service presenting with fatigue, dizziness, and vertigo which appeared 2 weeks ago. The patient's history reveals a Non-Hodgkin Lymphoma, treated with radiotherapy and chemotherapy in 2000 and both aortic and mitral regurgitation diagnosed in 2014, heart failure and pulmonary fibrosis. The following investigations were performed: the electrocardiogram revealed a third-degree atrioventricular block, echocardiography objectified calcifications and valvular fibrosis. To correct the symptomatic atrioventricular conduction disorder, permanent electric cardiostimulation is performed by inserting a pacemaker, programmed in DDD 50 / min mode, with a right atrial lead (sensing:3,4mV, pacing threshold:1V and impedance:719ohms) and a right ventricular lead(sensing:5,5mV, pacing threshold:1V and impedance:950ohms). **Results:** Post-implantation evaluation reveals VDD pacing mode with 95 beats/minute and the improvement of the general condition. **Conclusions:** All things considered, we can assert that the up-to-date treatment of cancer survivors handled initially with radiotherapy presents an increased risk of developing cardiovascular diseases. Adjusting the radiation dose depends on the physician's experience since he should find the equipoise between adequate protection of cardiac structures versus the best target volume coverage.

Keywords: Radiotherapy, Non-Hodgkin Lymphoma, Conduction disorder, Pacemaker

POSITRON EMISSION TOMOGRAPHY-COMPUTER TOMOGRAPHY(PET-CT) IN ONCOLOGY:USEFUL BUT NOT PERFECT?

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Background: Positron emission tomography (PET) is one of the most useful techniques in oncology imaging and it aids in the differentiation between benign and malignant tumors, improves staging and enhances the treatment response assessment. PET detects abnormal metabolic activity, while most of other tools can only reveal structural changes. **Objective:** We aim to present the case of a neoplastic patient assessed through PET-CT after an equivocal follow-up CT exploration. **Material and methods:** We report the case of a 68-year-old female diagnosed with stage I endometrial cancer in 2019 which was surgically treated in May 2019 (pathological diagnosis □ endometrioid adenocarcinoma pT1aN0M0). Her first follow-up CT showed enlarged mediastinal nodes and lung metastatic-like tumors. A PET-CT scan was performed and revealed that the mediastinal lymph nodes were having a high glucose metabolism and they were most likely metastases. The Institute's oncological board decided to assess the lymph nodes with the aid of EBUS(endobronchial ultrasound) and biopsy from which the latter was negative. The patient's history revealed that she had been investigated for an autoimmune disease 15 years prior to the cancer diagnosis. After several investigations, the antigen test for antiSLE(systemic lupus erythematosus) was positive. Three months later, the follow-up CT showed that all the structural changes in the lung remained steady. **Results:** Although PET-CT has a large variety of employments in oncology, it can also be a particularly effective technique in assessing disease activity in patients with SLE patients. An immune-complex disease, SLE is successfully appraised with the aid of PET-CT which indicates a large amount of fluorine-18 fluorodeoxyglucose(FDG) marked cells in lymphoid organs. **Conclusions:** Bearing all these in mind, it is very important to evaluate all the past pathologies of a patient before deciding on a certain investigation in view of the fact that sometimes a previously diagnosed pathology can impede in establishing an accurate diagnosis.

Keywords: Endometrial cancer, Positron emission tomography, Systemic lupus erythematosus

NOT AN ORDINARY RENDU OSLER WEBER SYNDROME

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Background: Rendu Osler Weber syndrome is a dominant autosomal inherited disease that consists of a primary defect of the vascular wall, characterized by a lack of capillaries that come between arteries and veins. **Objective:** The diagnosis for hereditary hemorrhagic telangiectasia is clinical and it is done after the Curacao criteria: spontaneous and recurrent epistaxis, telangiectasia, visceral lesions and familial history of the condition. **Material and methods:** A 39 years old male with a history of recurrent anterior epistaxis, telangiectasis on the lips and nose from the age of 7 is presented because of epistaxis, dyspnea, signs, and symptoms for a transient ischemic attack. Clinical examination was normal. His transthoracic echocardiography was normal. Arterial blood gas exam

detected an oxygen saturation of 98% which decreased to 89% in walking condition. Contrast transthoracic echocardiography shows a massive right to left late shunt compatible with the presence of intrapulmonary shunt quantified at 15%. The thoracic computer tomography and pulmonary angiography confirmed the presence of a pulmonary arteriovenous malformation (PAVM) on the inferior right lobe. The cerebral MRI detected the presence of old and recent ischemic lesions on the left hemisphere of the cerebellum. The radiologic and endoscopic evaluation did not detect other AVM on the brain or gastrointestinal tract. Similar PAVMs were detected in the other 5 family members out of 7 investigated, 3 of them presenting less severe respiratory, nasal and throat symptoms. Genetic tests have shown a genetic disease with autosomal dominant transmission and incomplete penetration. **Results:** Treatment consisted of percutaneous embolization which resulted in a favorable evolution of the patient's condition. **Conclusions:** Rendu Osler Weber syndrome is a rare condition, usually underdiagnosed and associated with multiple treatments that are challenging for specialists. Routine screening for PAVM's for the patients diagnosed with this condition is recommended and can prevent severe complications such as brain abscess and stroke.

Keywords: arteriovenous malformations, stroke, genetic disease

AN UNUSUAL PRESENTATION OF GASTRIC CANCER AND CHRONIC LYMPHOCYTIC LEUKEMIA IN A PATIENT: A CASE REPORT

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Background: Chronic lymphocytic leukemia (CLL) represents a neoplasm of mostly CD5-positive, mature B-cells, but incompetent regarding their function. A patient with one neoplasm has a high risk of being diagnosed with a second one. Thus, CLL and gastric carcinoma may be present in the same patient. This association involves some serious therapeutic challenges. Some of the risk factors have already been studied, while others remain unknown.

Objective: The aim of this presentation is to analyse the diagnosis and management of this association in a patient, as well as the causative factors. **Material and methods:** We present the case of a 52-year old man without family history of cancer who presented at the Internal Medicine Department with abdominal pain in the left hypochondriac region, rapid weight loss, the presence of multiple, painless cervical and submandibular enlarged lymph nodes for several weeks. At palpation the lymphadenopathy were adherent to the deep planes, with no Celsian clinical signs. The laboratory tests showed: leukocytes 66000/mm³, mature-appearing lymphocytes, smudge cells, suggesting chronic lymphoproliferative disorder. The findings of the gastroscopy were: tumor of the gastric body, Hp negative chronic gastritis. The CT findings include circumferential gastric wall thickening with inhomogeneous iodophilia. **Results:** The patient was moved to Hematology where he started the specific treatment for CLL with favourable outcomes, the lymphadenopathy diminished considerably in size. Afterwards he received the histopathology report of the gastric tumor which showed weakly cohesive gastric cancer with signet ring cells. He started the neoadjuvant chemotherapy. After imagistic examinations he will be considered for surgical treatment of the gastric cancer. **Conclusions:** This case is particular because of the presence of the two neoplasms at the same patient, which could be a coincidence or the consequence of impaired immunity, with other risk factors: carcinogenic, hereditary, immunosuppressive, iatrogenic.

Keywords: Chronic Lymphocytic Leukemia, Gastric Cancer, Etiology

ADVANCED CARDIA ADENOCARCINOMA ACCIDENTALLY DISCOVERED IN A PATIENT WITH COUMARIN OVERDOSE – A CASE REPORT

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Background: Gastric cancer is one of the most common type of cancer. It can be classified according to the anatomic site as cardia and non-cardia subtypes. Although the incidence of gastric cancer has declined in the last decades, there has been an increase in the number of cardia cancers. **Objective:** Our objective is to present a case of gastric adenocarcinoma discovered accidentally in a patient with coumarin overdose. **Material and methods:** A 68-year old patient with a medical history of aortic valve replacement, arterial hypertension, permanent atrial fibrillation, cardiac insufficiency NYHA III, under coumarin derivatives therapy, was admitted to the

Emergency Department complaining of: abdominal pain, dysphagia, weight loss (15 kg in 2 months), nausea and extreme fatigue. Laboratory findings revealed an unmeasurable INR, due to coumarin overdose. He received 2 units of plasma and was transferred to the internal medicine department for investigations and treatment. **Results:** The abdominal ultrasound revealed: liver with isoechogenic structure and irregular capsular contour; hypotonic cholecystopathy and neoplastic ascites. The gastroscopy showed the cardia and the inferior esophagus involved in a hemorrhagic proliferative process, extended on the lesser curvature and fornix; deformed antrum with erythema and chronic erosions, gastric corpus involved in the proliferative process. The histopathological exam revealed: chronic inactive gastritis with intestinal metaplasia, glandular atrophy and poorly differentiated tubular adenocarcinoma associated with infiltrative, dyscohesive carcinoma presenting signet ring cells. **Conclusions:** The adenocarcinoma of the cardia has a poor prognosis because of the more advanced stage of the disease at diagnosis. The development of screening tools for early diagnosis is the most important strategy for decreasing mortality. The treatment consists of palliative surgical oncology.

Keywords: cardia adenocarcinoma, coumarin overdose, neoplastic ascites

NEWLY DIAGNOSED GASTRIC ADENOCARCINOMA IN A CIRRHOTIC PATIENT WITH ACUTE PULMONARY EMBOLISM

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Background: Gastric cancer (GC) remains one of the deadly diseases worldwide which carries a poor prognosis, due largely to late diagnosis. Intestinal-type GC with its tubular histologic pattern is the most frequent type of GC, considered a consequence of the histopathologic cascade initialized by longstanding *Helicobacter pylori* infection. **Objective:** The presented case demonstrates an asymptomatic locally advanced gastric adenocarcinoma in a cirrhotic patient admitted for symptomatology of pulmonary embolism (PE). **Material and methods:** A 63-year-old male presented to the emergency room with 1-week history of progressive dyspnea on exertion, generalized edema and a positive history of alcohol consumption. The pulmonary angiography and abdominopelvic computed tomography (CT) revealed PE, bilateral pleural effusion, pericarditis, liver cirrhosis with ascites. The venous Doppler ultrasound demonstrated chronic venous disease CEAP VI and great saphenous vein thrombosis. Further testing showed normal hemoglobin and thrombocytes levels, hyponatremia, hypopotassemia, hypoalbuminemia, negative results for HBsAg and anti-HCV test. The upper digestive endoscopy (UDE) did not detect oesophageal varices, but a proliferative quasi-circumferentially mass between 45 and 55 cm-distance from the upper incisors was observed in the stomach. The process was friable, with necrotic areas and highly haemorrhagic. Histologic examination of the biopsy specimens revealed a moderately differentiated tubular adenocarcinoma, negative for *Helicobacter pylori* infection and free for gastric premalignant lesions in the surrounding mucosa. CT scan revealed no evidence of nodal or metastatic disease in the abdominopelvic regions. **Results:** After receiving anticoagulant therapy (tapered doses for bleeding risk), diuretics and additional treatments in order to correct electrolytes imbalance and hypoalbuminemia, the patient's evolution was favorable and he was referred for oncological and surgical evaluation. **Conclusions:** An advanced GC may be revealed by complications of procoagulant status induced by cirrhosis and cancer itself in a patient without history of gastric complaints, negative for *Helicobacter pylori* infection and free for gastric precancerous lesions in the surrounding mucosa.

Keywords: gastric adenocarcinoma, cirrhosis, pulmonary embolism.

DIAGNOSIS OF DISORDERS INVOLVING OTALGIA

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Background: Otolgia is a localized pain at the level of the ears which may be caused by a direct damage or disorder to the ear or by an impairment or pathology of a neighborhood organ. Typical sources of primary otalgia are external otitis, otitis media, mastoiditis, and different auricular infections. Otolgia reaches patients from newborn to elderly. **Objective:** The present paper aims to establish a conduct in order to diagnose the causes for which the otalgia appears. **Material and methods:** Otolgia can signal a banal disease such as an ear wax, an acute inflammatory condition of the external ear but sometimes it can also signal serious diseases in which the

patient's life could be in danger. For example: an epiglottitis or different oropharyngeal tumors. **Results:** Following the study of specialized literature and casuistry in an ENT (Ear, Nose and Throat Center) Clinic for a period of 6 months, a diagnostic procedure was developed regarding the otalgia. **Conclusions:** We consider that if a patient comes to the hospital accusing otalgia, we should explore the ear, the area near the ear and the neighboring regions. It is also very important to have a complete history containing a review of the symptomatology, cardiopulmonary background, sinuses problems, cervicofacial pain syndromes and recent trauma. The history can guide the clinician in the selection of the following tests. A diagnostic procedure for otalgia is useful in order to shorten the time to diagnose the cause of otalgia, which is helpful in multiple medical specialties.

Keywords: otalgia, otitis, oropharyngeal, cancer

APPLIED ALGORITHM FOR PEDIATRIC HAEMOPTYSIS - CASE PRESENTATION

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Background: Cystic fibrosis (CF) is a genetic disease associated with chronic lung infection and progressive deterioration of lung function. Haemoptysis is a common complication in adult CF patients, but it only occurs in 1-1.5% of paediatric patients, with potentially life-threatening consequences. **Objective:** The main purpose of this paper is to emphasize the importance of a good management of haemoptysis in pediatric patients with CF. **Material and methods:** A 15 y.o CF male patient was admitted at INSMC "Alessandrescu Rusescu" Bucharest with several episodes of mild haemoptysis which started three days prior. The patient has multiple CF complications: left superior lobe bronchiectasis, nasal polyposis (surgically removed -2017), Pseudomonas Aeruginosa chronic lung infection, exocrine pancreatic insufficiency. Clinical examination revealed productive cough with hemoptoic sputum, no other notable changes. The algorithm for management of hemoptysis in children was applied. **Results:** Laboratory tests were normal, CT and radiology findings were not relevant. A bronchoscopy was performed - no active bleedings were found. Tuberculosis was excluded. Nasal videoscapy showed no signs of bleeding. Haemoptysis stopped after a few days and the patient was discharged with vitamin K treatment. Three months later, the symptoms reappeared. He was treated with etamsylate, carbazochrome salicylate and tranexamic acid. A CT-angiography was performed and there were no signs of bleeding from the bronchiectasis. Was the bleeding a pulmonary one? Another nasal videoscapy was performed and it showed a polypous mass in the right middle meatus as a possible source of the bleeding. The patient continued the treatment and the haemoptysis stopped. At three month follow-up there was no sign of recurrence. **Conclusions:** CF patients need thorough investigations conducted by multidisciplinary teams because of life-threatening complications. Not all haemoptysis have pulmonary source, even if the patients have bronchiectasis, but it is mandatory to exclude those which can worsen patient's status.

Keywords: cystic fibrosis, haemoptysis, bronchiectasis, nasal polyposis

IN-STENT RESTENOSIS STENTATION IN BYPASS GRAFT

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Background: Management of patients with in-stent restenosis (ISR) remains an important clinical problem, ISR being caused by neointimal proliferation that consists in an excessive tissue proliferation in the luminal surface of the stent. Bare-metal stents (BMS) are still frequently used, and are associated with relatively high restenosis rates. The introduction of drug-eluting stent (DES) drastically reduces the occurrence of severe neointimal proliferation, the dominant cause of restenosis after stent implantation. **Objective:** Evaluation of the stent stenosis, stentation with DES, establishing the permeability of the bypass and prevention of future restenosis. **Material and methods:** The patient is a 70 year-old male suffering of diabetes and grade 2 obesity, presented himself in December 2019 with unstable angor. Stentation of circumflex and diagonal arteries and stentation of LAD artery proximal obstruction were performed, the patient having had a double coronary bypass on the circumflex coronary artery and the LAD artery in the past. **Results:** The patient presented again with unstable angor -coronarography showed permeability in the stents placed in December. Upon further investigation, in-stent restenoses in the circumflex bypass graft were detected, where two BMS stents had previously been placed, and a new proximal

stent stenosis was found .After stentation of the stenosis with the two DES, the blood flow was successfully restored. The procedure was successfully performed, and the patient is in a good condition, without pain.

Conclusions: Stentation with DES is the preferred treatment method, due to its decreased risk of restenosis on the surgical site. However, the problems encountered are the low number of such stents and the possibility of patients not being able to afford such care.

Keywords: restenosis, DES, angor

OMALIZUMAB AS THERAPEUTIC APPROACH IN CHRONIC GLUCOCORTICOID-USING PATIENTS – CASE STUDY

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Background: Although associated with severe side effects in long term usage, glucocorticoids are still first-line of treatment in asthma. Yet Omalizumab, a recombinant human monoclonal antibody against IgE, can be used to treat severe forms of allergic asthma bronchiale by blocking the interaction of IgE and consecutive inflammatory mediators, like mast cells and basophils. It thereby prevents the cascade of allergic reaction that would lead to exacerbations in asthmatic patients. **Objective:** This case study aims to compare the effectiveness of Omalizumab in a long-standing severe asthmatic patient with the usage of long-term glucocorticoids. **Material and methods:** A 63-year-old patient with severe chronic allergic asthma bronchiale since childhood was treated with high doses of oral glucocorticoids (initially Prednison, later Medrol) for 50 years. Over the past six years, she was diagnosed with cataract and osteoporosis - two common long-term side effects of high dosage glucocorticoids - and suffered from an ongoing allergic sinusitis, numerous acute exacerbations of her asthma bronchiale, and concomitant bacterial infections. Due to her general health decline, she started to receive Omalizumab as a twice-a-month injection in 2017. Concomitantly her glucocorticoid medication (Medrol) was stopped and currently she only takes it if needed (approximately 3-5 days per two months). **Results:** Two years after onset of regular injections of Omalizumab, the patient's peak flow results improved from 64% to 85%, she suffered less often from bacterial infections (pneumonia once), and the acute exacerbations of her asthma bronchiale decreased. The monthly doses of Omalizumab were reduced to 150 + 75 mg. **Conclusions:** Omalizumab can be a useful and effective alternative in the treatment of chronic, severe, allergic asthma bronchiale.

Keywords: asthma bronchiale, Omalizumab, monoclonal antibody, glucocorticoids

THE MANAGEMENT OF THE EPILEPTIC PATIENTS BY MEDICAL ASSISTANTS

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Background: Epilepsy is a chronic condition, characterized through complex clinical manifestations, of neurological and psychiatric nature. The medical assistant □ an important component of the therapeutic team - has a special role in their prophylaxis and management. **Objective:** The objectives of the study are the evaluation of training and professional experience exhibited by medical assistants, with regard to transitory and permanent psychiatric disorders caused by epilepsy, as well as the way in which they are managed. **Material and methods:** : This is a cross-sectional study, focusing on a population of medical assistants from the psychiatric field, as well as from non-psychiatric fields, including those working in neurology. The medical assistants included in the study received a questionnaire designed to assess their knowledge regarding the psychiatric manifestations of epilepsy, their prophylaxis and appropriate therapeutic approach. The questionnaire was composed of 15 questions, the participants had the ability to answer TRUE/FALSE and YES/NO, and were then given a score 0-5, based on their knowledge. The results were compared between participants from psychiatry, neurology, and other medical fields. **Results:** The results of the study confirm a better awareness of neurological manifestations of epilepsy, as opposed to psychiatric ones, both with regard to recognizing specific symptoms or organic personality traits, and assisting with them. Medical assistants from the psychiatry field are more familiarized with psychiatric disorders caused by epilepsy, followed by assistants from neurology. **Conclusions:** The study emphasizes that among medical assistants, there is insufficient clarity about the different ways to approach and assist an epileptic patient who presents psychiatric symptoms. Therefore, there is an obvious need for educational programs to help address this.

Keywords: epilepsy, medical assistant, psychiatry, neurology

THE EFFECTS OF A PLANT-BASED DIET ON RISK FACTORS FOR CORONARY HEART DISEASE AND METABOLIC DISORDERS - A CASE PRESENTATION

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Background: Many people are confident, a healthy diet being completely based on plants without the consumption of animal products. Incidences of Coronary Heart Disease and disorders like Diabetes Mellitus are rapidly inclining, being related to eating habits of the population. **Objective:** In this paper, we present the case of a 52 year-old male patient from Germany, overweight, smoker and diagnosed with type2 Diabetes Mellitus and Hypertension, therefore comprising the metabolic syndrome, a significant risk factor in the development of CHD. **Material and methods:** For the period of the scientific evaluation interval (03.01.2020 - 03.02.2020), the patient changed to a 100% plant-based diet and wasn't allowed to consume any animal products. A blood analysis with determination of body factors was performed before and after this period, providing values for comparison and to evaluate possible changes regarding risks for potential CHD and metabolic diseases. **Results:** The most important changes in laboratory values are a significant decline in cholesterol (210mg/dl // 180mg/dl) and LDL (144mg/dl // 120mg/dl) which, when raised, significantly increase the risk for atherosclerosis, the determinant factor of CHD, therefore it shows a declining risk. Furthermore, the HbA1c, long-term evaluation factor for the diabetic status of the patient, lowered (7,9% // 7,7%) and in addition to the decrease in glucose (180mg/dl // 145mg/dl), suggests a further reduction, when continuing the diet after this research period. Factors, like weight (99,9kg // 94,9kg), body-fat (34,1% // 30,4%) or abdominal girth (126cm // 115cm), show a pleasing decrease and positively influences the risk for CHD. **Conclusions:** In conclusion, after one month without animal products, slight changes are observed, which positively influence, hence reduce the risk of potential incidences of CHD. Even though the shifting isn't extreme, a change in the right direction and towards a declining risk can be established. For more significant alterations, an extended research period should be considered.

Keywords: plantbaseddiet, coronaryheartdisease, diabetesmellitus

ANALYSIS OF THE SECULAR TREND IN AGE AT MENARCHE AND MENOPAUSE

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Background: Menarche and menopause are two fundamental cornerstones in the development and growth of women. Many studies showed a consistent decrease in menarche and menopause age and their correlation with many pathologies, such as diabetes, obesity, and osteoporosis. Even precocious puberty seem linked to an increase in breast cancer risk. **Objective:** Investigate the trends in menarche and menopause for the female population of Romania, study their evolution over the last decades, the factors that could influence menarche and menopause and their impact on the development of diseases such as osteoporosis and dyslipidemia. **Material and methods:** Observational study on a sample of 150 women from the Mures County, Romania. We obtained data such menarche and menopause age, number of pregnancies, body mass index, information about smoking and present morbidities (dyslipidemia, diabetes mellitus and osteoporosis) by analyzing patient's files from the Endocrinology clinic of Targu Mures. Inclusion criteria: present menarche. **Results:** The median of menarche showed a decrease from 16 years at the 6th decade to 12 years at the 2st decade of age ($p < 0,0001$), and from 17 years at the 8th decade to 11 years at the 1st decade of age ($p < 0,03$). The 60% of the patients that presented menopause earlier that 44 years old had osteoporosis, 10% of these cases had severe osteoporosis; while 46% of patients who had menopause between 45 and 55 years old presented osteoporosis, 6% of these cases were severe. No significant decrease was shown in mean age of menopause. **Conclusions:** From preliminary data of this ongoing study there seems to be a secular negative trend regarding the age of menarche in the last 8 decades. Comparing this to other studies, there is a correspondence with studies performed in other countries, even if the responsible causes of the secular trend are still a debatable subject.

Keywords: Endocrinology, Early menarche, Early menopause, Statistical analysis

THE IMPACT OF DIET IN ANKYLOSING SPONDYLITIS-CASE REPORT

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Background: Seronegative spondyloarthritis are a group of rheumatological disorders that share a number of clinical features and genetic associations. Under this name are included ankylosing spondylitis, psoriatic arthropathy and others. Ankylosing spondylitis is a chronic, progressive inflammatory disorder in which changes occur in the joints of the spine and adjacent soft tissues. In the appearance of spondylarthritis, both environmental and genetic factors play an important role. There is a classic correlation between the prevalence of spondylarthritis and the prevalence of the HLA B27 gene, which contributes to the alteration of the gut microbiome. The digestive tract implicit intestinal dysbiosis has a certain role in the pathogenesis of spondylarthritis. **Objective:** The objective of the study is to evaluate the role of nutrition and the dietary efficacy in patients with seronegative spondylarthritis. **Material and methods:** The study includes clinical and paraclinical examination with inflammatory markers initially and at the end of the diet. We present the case of 49 y.o. patient known with ankylosing spondylitis axial form, undergoing NSAID therapy. **Results:** Following the local clinical examination, the patient had sensitivity to percussion and palpation of the spinal apophysis and positive maneuvers for sacroilitis. Paraclinically the patient had a VSH near the maximum reference value provided by the laboratory but within limits and negative PCR. **Conclusions:** The microbiome being one of the environmental factors involved in the evolution of seronegative spondylarthritis can be influenced by diet.

Keywords: seronegative spondyloarthritis, ankylosing spondylitis, diet

OPTIC NEURITIS AS THE CARDINAL SYMPTOM FOR RECURRENT REMISSIVE MULTIPLE SCLEROSIS

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Background: Multiple sclerosis (MS), a chronic autoimmune disease characterised by inflammation and central nervous system demyelination, is one of the main causes of non-traumatic neurological invalidity in young adults, with a multifaceted onset. Optic neuritis (ON) heralds the diagnosis of MS in 20% of the cases. **Objective:** To assess the incidence of ON at the onset of MS diagnosis and the clinical evolution of the patients. **Material and methods:** We assessed 61 patients diagnosed with MS, treated with various disease modifying therapies (DMT) in Neurology 1 Clinic of the Emergency Clinical County Hospital, selected between 2018 and 2020. The patients were evaluated by their demographic and clinical data: type of onset (ON, pyramidal, sensory, brainstem symptoms), number and clinical aspect of the relapses, neurological disability assessed by the Expanded Disability Status Score (EDSS). **Results:** The mean age at MS onset 35.05±9.79 years, 40 (65.57%) female and 21 (34.42%) male patients respectively. The mean EDSS was 2.12±1.2. Most of the patients, 20 (32.78%) had pyramidal signs at onset, followed by 17 (27.86 %) ON, 13 (21.31 %) sensibility and 11 (18.03%) brainstem. When comparing the relapses before and after DMT was instituted, we found a statistical significant p<0.0001. From the cases that had ON as the initial presentation, 4 (23.52%) presented subsequent ON relapses. The ON group had a mean age of 33.12±8.65 years, including 13(76.47%) female and 4 (23.52%) male patients. From the onset to diagnosis, a mean of 3.81 years was reported in the ON group. **Conclusions:** The presence of ON at the onset of MS in our study is similar to the internationally reported data, around 20-30% of the cases. Close to a quarter of the patients from the ON group presented during their lifetime a relapse with ON symptoms. The delayed diagnosis for ON group can be secondary to atypical ON onset.

Keywords: Recurrent remissive multiple sclerosis, Optic neuritis, Demyelination

EVOLUTION OF ANTIBIOTIC RESISTANCE OF BACTERIA IN FEBRILE URINARY TRACT INFECTION IN CHILDREN

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Background: Urinary tract infection (UTI) represents one of the most common bacterial infections in pediatric pathology. Globally there are significant differences between the antibiotic sensitivity of different bacteria, as well as an alarming increase in resistance. According to the American Academy of Pediatrics, initial broad-spectrum antibiotic therapy should take into account, according to data on antibiotic resistance in the local community. **Objective:** We aim to demonstrate antibiotic resistance in pediatric UTI and changing ratio in antibiotic resistance by years. **Material and methods:** We analyzed the etiology and the changing ratio in antibiotic resistance of the urinalysis and antibiograms taken from children with febrile UTI, between 2015-2019, hospitalized in the department of Pediatric Nephrology. **Results:** 182 urinary tract infections were analyzed. 64% percent of patients were female and 36% male. The most affected age category is under one year (52%), the frequency being decreasing for the following years. Escherichia coli was the predominant bacteria isolated (79.12%). Bacteria other than E.Coli demonstrated an increased prevalence for males ($P < 0.001$), a higher resistance to ampicillin(89% vs 66.6%), amoxicillin-clavulanate(89% vs 31.25%), cefuroxime(40% vs 11.1%), gentamicin(24.3% vs 6.25%), and ceftazidime(29.7% vs 6.94%) comparing with E.Coli bacteria, and also are a risk factor for infection with multidrug resistant(MDR) urinary pathogens(OR = 5.012, $P = 0.0001$). We found decreasing resistance trends of urinary pathogens for amoxicillin-clavulanate, cefuroxime, ceftazidime, gentamicin and no significant trends for ampicillin, trimethoprim-sulfamethoxazole, norfloxacin and nitrofurantoin between 2015 and 2019. Of the total number of urinalysis, 19.3% were MDR. As risk factors for MDR we identified chronic chemoprophylaxis (OR=4.0741, $p < 0.0003$) and multiple relapses (OR=7.7368, $p < 0.001$). **Conclusions:** Although worldwide the tendency is of increasing resistance, in our clinic has been demonstrated a decrease. We consider that the empiric antibiotherapy should be individualized according to the sex of the person, the association of the malformations and the history of infections.

Keywords: antibiotic resistance, urinary tract infection, multidrug resistant

SPLENIC METASTASIS FROM BREAST CARCINOMA: A RARE MRI FINDING – CASE REPORT AND LITERATURE REVIEW

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Background: Splenic metastasis is a rare imaging finding, most of the lesions being found on autopsy. The most frequent primary sources of splenic metastasis are: lung carcinoma, breast carcinoma, colorectal carcinoma, ovarian carcinoma and melanoma. **Objective:** Our aim is to accentuate the ensconced ways of the metastatic process and the importance of a detailed medical examination as part of the strict follow-up in cancer patients. **Material and methods:** We report the case of a 57-year-old woman who presented with pain in her left hypochondrium. The patient has a history of breast cancer in her left upper-outer quadrant from 2013. She was treated with radical mastectomy and 6 cycles of chemotherapy (cyclophosphamide, methotrexate, 5-fluorouracil). Laboratory testing revealed in the present anemia, leukocytosis and increased tumor markers. On ultrasound splenomegaly and an inhomogenous aspect of the spleen were detected indicating further evaluations. **Results:** Abdominal MRI with contrast was performed and revealed a large splenic mass, with extension in the pancreatic tail, dimensions of 12,6/11,1/15,8 cm (ap/ll/cc), with a heterogeneous aspect on T1, T2 and after contrast administration, with peripheric gadolinium enhancement and central necrosis. Splenic hilum adenopathy and left pleural effusion were also identified. No other abdominal abnormalities were found. Splenectomy followed by histopathological and immunohistochemical evaluation revealed splenic metastasis from infiltrating ductal carcinoma of the breast. **Conclusions:** Even if splenic metastasis are uncommon imaging findings, they should be taken into considerations in patients with history of breast cancer and left hypochondrium pain. Splenectomy is the treatment used in most cases but for solitary lesions less aggressive methods are available. Because of the progress made in screening and imaging methods splenic metastasis can be easily detected by MRI evaluation and treated earlier.

Keywords: splenic metastasis, breast cancer, MRI

NEUROPSYCHIATRIC COMPLICATIONS IN A COMPLEX CASE OF PARKINSON'S DISEASE

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Background: Parkinson's disease is a chronic neurodegenerative disease characterized by tremor, rigidity and bradykinesia. Parkinson's is usually associated with neuropsychiatric complications such as depression, anxiety, cognitive impairment and psychosis. Psychiatric symptoms are one of the most common side effects of antiparkinsonian medication and often worsen the patient's quality of life. **Objective:** We aim to underline the idea that neuropsychiatric complications can be more disabling than the motor dysfunctions and negatively impact patient's quality of life. **Material and methods:** We present the case of a 57 years old male patient with a history of psychiatric problems, Parkinson's disease, ischemic stroke, hypertension and coronary heart disease who was admitted at the Psychiatry Clinic presenting symptoms of psychosis such as agitation, visual and auditory hallucinations and paranoid delusions. The patient also presented symptoms of a major depressive episode such as feelings of emptiness, hopelessness, worthlessness and mixed insomnia overlapping with symptoms of a somatoform disorder. At the mental status examination, the patient wasn't very cooperative, he had trouble thinking, concentrating and presented temporal disorientation, suspiciousness, anxiety and irritability. During his admission, the patient was properly monitored and received antipsychotics, antidepressants, anxiolytics and antiparkinsonian medication. He also received medication for his other diseases. **Results:** The patient's evolution is favourable after the treatment. He is cooperative, calm and doesn't feel the need to harm himself or those around him. He is discharged from the clinic with the following recommendations: balanced lifestyle, avoidance of traumas and conflicts, proper medication and periodic psychiatric consult. **Conclusions:** Neuropsychiatric complications occur in the majority of patients with Parkinson's disease and are associated with impaired quality of life for patients and relatives. Therapy needs to be perfectly balanced because of the complicated interactions which can occur between a patient's motor symptoms, treatments for those symptoms and neuropsychiatric conditions.

Keywords: Parkinson's disease, psychosis, depression, anxiety

TOOTHBRUSH MICROBIAL CONTAMINATION AFTER SEVEN DAYS OF USE

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Background: The human oral cavity embodies a complex habitat which provides optimal conditions for fungal and bacterial colonization. Toothbrushes are prone to get contaminated with bacteria and yeasts, either from the oral cavity or from the environment. **Objective:** To evaluate the degree of toothbrushes contamination after one week of use. **Material and methods:** Lingual swabs were collected from 49 volunteers to detect the colonization of the oral cavity with *Candida spp.* Half of the volunteers received toothbrushes with plastic caps, while the others received toothbrushes without caps. The subjects were asked to use the toothbrushes for 7 days. Forty-four volunteers returned the toothbrushes. The mycological and bacterial analysis implied shredding 200 mg of bristles/toothbrush and mixing 100 mg to 1 ml of saline in sterile test tubes. After thorough mixing, 50 µL of suspension was inoculated on Sabouraud and Blood Agar. The bacteria were identified based on their morphological growth and biochemical patterns, and the samples with a positive mycological exam were reinoculated on selective chromogenic identification medium for *Candida spp.* **Results:** The initial colonization with *Candida spp.* of the oral cavity of the volunteers was 16% (8 samples), 64% of which had *Candida albicans*. Nine (20.45%) tested toothbrushes were found positive for *Candida spp.* (55% of which had *C. albicans*), but only 3 of them were used by subjects with a positive screening sample. Fourteen (31.82%) toothbrushes were colonized with saprophytic flora of the oral cavity, 20.45% (9) were contaminated with bacteria from the order Enterobacterales, 22.73% (10) presented non-fermentative bacilli (*Pseudomonas spp.*, *Acinetobacter spp.*), while the rest of presented either Gram-negative bacilli (4;9.09%) or no bacterial growth (12;27.27%). 70% of the samples with significant bacterial growth had plastic caps. **Conclusions:** Toothbrushes get easily contaminated with yeast and bacteria, especially from the environment. The usage of plastic caps may favor the contamination of

toothbrushes.

Keywords: toothbrushes, contamination, Candida spp., oral cavity

TWO SUCCESSIVE INTRAUTERINE PREGNANCIES FOLLOWING TRANSPERITONEAL OOCYTE MIGRATION IN A CASE OF A WOMAN WITH SALPINGECTOMY AND CONTRALATERAL OOPHORECTOMY

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Background: During ovulation, the oocyte released from the Graaf follicle is transported to the uterine tube by follicular fluid. Transperitoneal migration, meaning the passage of the oocyte shed from an ovary through the peritoneal cavity to the ostium of contralateral fallopian tube, is a rare, but possible mechanism for oocyte retrieval. In most of the cases, it leads to extrauterine pregnancy. **Objective:** The aim of the paper is to present the case of a woman with a history of right salpingectomy and left oophorectomy, who had two subsequent spontaneous intrauterine pregnancies, following coitus. **Material and methods:** A 32 years old woman presented to the gynecology clinic in February 2020, for a routine consultation and found out that she was pregnant in 6 weeks. 12 years ago, the patient underwent classic left oophorectomy, due to a 10cm diameter ovarian cyst and right total salpingectomy, due to ectopic pregnancy, complicated with rupture and hemoperitoneum. Because of extended pelvic adhesions, which were obliterating the remaining uterine tube, the patient presented secondary infertility. In 2014, laparoscopic adhesiolysis was performed, the obturated uterine tube was released and the oviduct patency had been verified by injecting methylene-blue in cervix. The fallopian tube was permeable and six months after the intervention, the patient had a spontaneous intrauterine pregnancy and she gave birth to a 10 Apgar score baby. Now, 5 years after the first birth, the patient is pregnant again in 2 months. **Results:** Although transperitoneal migration of the oocyte is more often seen in rabbits and sheep, in exceptional cases it might appear in human reproduction. **Conclusions:** Because there were two pregnancies after transperitoneal migration of the oocyte, in a woman with one ovary and contralateral oviduct, we can affirm the fact that the anatomical integrity of genital structures does not always influence the ovum retrieval.

Keywords: transperitoneal migration, salpingectomy, oophorectomy, infertility

MANAGEMENT OF CHRONIC IRON DEFICIENCY ANEMIA IN A CASE OF YOUNG DIABETIC WOMAN WITH GLYCEMIC SENSOR

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Background: Diabetes is a metabolic disease that occurs when glucose blood level has high values, during a long period of time. 11% of Roumania's population have diabetes and 10% of them have type 1 diabetes, which results from the pancreas's inability to produce enough insulin. **Objective:** The purpose is to present the difficulty of treating an iron deficiency anemia, in a case of chronic infection due to diabetic ulcer and to emphasize the importance of glycemic sensors in maintaining glycemic balance and in interpretation of the values of HbA1c. **Material and methods:** A 46 years-old woman presented to clinic with severe imbalanced type 1 diabetes, with specific complications, associated with severe iron deficiency anemia. The metabolic disease appeared 25 years ago and due to poor treatment in background, the patient had developed microangiopathic complications at a relatively young age. She had mixt peripheral polyneuropathy stage III, diabetic nephropathy stage-IV (albuminuria >300mg/24h), chronic obliterating arteriopathy of lower limbs stage-IIA, non-proliferative retinopathy, bilateral amputation of the halluces and second toes and chronic foot ulcer. The patient started using a glycemic sensor and correct diabetes treatment was given. Her iron blood level was 23mg/dL (35-150mg/dL), after 4 months of iron treatment, the iron blood level was 20mg/dL, secondary to chronic infection. The patient received blood supplement, continued the treatment with iron, B1 and PGE1 and the blood iron level became 29mg/dL in 6 months. The level of albuminuria decreased to normal values. In order to verify the veracity of HbA1c levels, that might be false positive in case of anemia, they are correlated with sensor's parameters: hypoglycemia, hyperglycemia, time in range. **Results:** The patient is balanced now, and sugar blood level is monitored with the glycemic sensor. **Conclusions:** Long periods of glycemic imbalance lead to microangiopathic complications, that require long time treatment and cannot be completely healed.

Keywords: iron deficiency anemia, microangiopathic complications, glycemic sensor, type 1 diabetes

HEPATIC BIOPSY FOR THE DIAGNOSIS OF A LUNG ADENOCARCINOMA

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Background: Lung adenocarcinoma is classified as one of the most common types of lung cancer which evolves from the mucosal glands and has a reserved prognosis. **Objective:** Our aim is to present the case of a 69-year-old patient with pneumonia and a right-sided pleural effusion, conclusively diagnosed with lung adenocarcinoma. **Material and methods:** A 69-year-old male with type 2 diabetes, hypertension and a chronic respiratory failure history came to our clinic accusing dyspnea on exertion and dry cough. The imagistic investigations evidenced a pulmonary nodule located on the right side of the paravertebral space, pahipleuritis and multiple focal liver lesions suggestive of metastasis. Consequently, the immunohistochemical (IHC) profile confirmed the diagnosis of malignant tumor of bronchus and lung with multiple liver metastases. The best approach in this case was chemotherapy according to the guidelines to prevent the spread of the cancer cells and antiemetics for drug side effects. **Results:** The patient was discharged after the administration of the fourth cycle of chemotherapy drugs with the recommendation for follow-up visits at periodic intervals for planned sessions of medication and computed tomography (CT) assessment along with the mention that the prognosis is not a favorable one and the disease is in progression. **Conclusions:** The peculiarity of this case was the diagnosis of this type of cancer confirmed by hepatic biopsy and IHC due to the fact that the thoracentesis didn't show significant changes in the content of the evacuated liquid.

Keywords: lung adenocarcinoma, hepatic biopsy, IHC, chemotherapy

CT CONSIDERENATIONS IN THE EVALUATION OF POLYSPLENIA SYNDROME IN ADULT PATIENTS – A CASE REPORT AND LITERATURE REVIEW

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Background: Left isomerism, a particular form of heterotaxia, reflects the symmetrical transposition of the left hemithorax and hemiabdomen around the midline axis of the body, being always associated with polysplenia. This represents a rare combination of congenital malformations characterized not only by multiple aberrant spleens but also anomalies of other abdominal organs and vessels. This situs ambiguous can cause a wide variety of clinical manifestations. **Objective:** Our aim is to describe and emphasize the polymorphic anomalies in polysplenia syndrome, associated with other findings in left isomerism. **Material and methods:** We report the case of a 34-year-old female, with history of abdominal discomfort and pain for a period of one week. No relevant medical history or any remarkable family history was identified. Laboratory results were in physiological ranges. Ultrasound examination detected multiple oval well-defined focal lesions in the left hypochondrium with echogenicity similar to splenic parenchyma, indicating further imaging evaluation. **Results:** Abdominal CECT demonstrated complex anomalies, including organ and vascular malformations. Imaging evaluation identified: 5 spleens with dimensions varying from 7/5mm up to 77/33mm; absence of the Treitz angle with common mesentery. Vascular abnormalities were represented by the absence of the infrahepatic segment of the IVC with azygos continuation and portal vein with a preduodenal and prepancreatic aspect. **Conclusions:** Our case highlights the accurate evaluation of CECT in complex abdominal congenital anomalies, being an advanced method, useful in the assessment of patients with polysplenia syndrome, especially because the treatment will be chosen according to associated malformations. The absence of the infrahepatic IVC, which creates a cardiopulmonary bypass through the azygos vein, is the most common feature found in literature. We can also confirm, in this group, the first symptom is abdominal pain, which can be related to a midgut malrotation, presenting as intermittent episodes of duodenal obstruction with spontaneous remission.

Keywords: Polysplenia, CECT, Malformation, Left isomerism

A COMPARATIVE GENDER BASED EVALUATION OF MENTAL HEALTH AMONG ROMANIAN EMIGRANTS

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Background: In the past decades, human migration has become a frequent phenomenon in Romania. Adapting to a different social and cultural environment may lead to negative changes and high levels of mental stress in the emigrants' life. A semnficative number of studies have shown an increase in the number of emigrants suffering from atypical forms of depression, anxious disorders and even psychosis. **Objective:** The aim of this study is to compare the mental health state gender wise (males and females) in people who emigrated for work purposes to different countries. **Material and methods:** We performed a descriptive study on 303 participants (222 females and 81 males). The data was collected using an online questionnaire which evaluated multiple parameters: economical, demographical and symptomatological. The data was analyzed using IBM SPSS Statistics version 20. **Results:** Most people included in the study were aged between 26-45 years old. Regarding their capacity to adapt to the workplace, males accommodated easier than females (79% vs 70%). The symptoms of depression such as low self esteem, emotional dissatisfaction, loneliness and discrimination were more commonly found in males. Guilt, inferiority complexes and crying were more frequent in women. Suicidal tendencies were present in both males and females equally. Anxiety spectrum symptoms and phobias, such as the fear of losing their job, speaking in a foreign language (xenoglossophobia), walking alone on the street and the mental stress were more commonly found in females. Organic manifestations (gastrointestinal symptoms, headaches, palpitations, muscular tension and mental exhaustion) are more commonly found among women, who also have a lower quality of sleep. **Conclusions:** Even though most emigrants have a good mental state, those who develop symptoms from the depression and anxiety spectrum are more frequently females.

Keywords: migration, emigrants, depression, anxiety

THE EVALUATION OF DEPRESSION AND ANXIETY SYMPTOMS IN PATIENTS WITH SYSTEMIC SCLEROSIS

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Background: Scleroderma (systemic sclerosis) is an autoimmune disorder characterized by generalized and uncontrolled fibrosis of the tissues, affecting multiple organ systems: integumentary, respiratory, cardiovascular, skeletal, nervous etc. Patients develop different levels of disability, which decreases their quality of life and puts them at risk of developing neuropsychiatric disorders, such as depression and anxiety, diseases that can affect their adherence to the treatment. Those patients require a multidisciplinary approach and a prompt treatment addressing their mental health. **Objective:** The aim of this study is to evaluate the levels of anxiety and depression, in patients with systemic sclerosis in the Rheumatology Department of the Emergency Clinical County Hospital of Targu-Mures. **Material and methods:** We performed a prospective study on 18 patients, all of them females, diagnosed with progressive systemic sclerosis according to ACR/EULAR 2013 criteria. We applied 3 scientifically validated questionnaires: Hamilton Depression Rating Scale (HDRS), Hamilton Anxiety Rating Scale (HARS) and the Health Assessment Questionnaire □ Disability Index (HAQ), for determining the level of functional impairment due to the autoimmune disorder. **Results:** The patients included in the study are aged between 44 -76 years old, 52,6% of them being part of the 56 □ 65 years old age group. They have multiple comorbidities and treatments. 63,2% of them are retired due to chronic illness, the HAQ showing a level of disability ranging from mild to very severe, most of them (42,1%) having a moderate functional disability. We found 10 patients with mild and 5 with moderate and severe symptoms of depression, while anxiety symptoms were clinically significant in 9 out of 18 patients. **Conclusions:** Scleroderma is a systemic disorder with an increased negative impact upon both organic functions and mental and social wellbeing. Thus, it is important to address mental health issues in the management of these patients.

Keywords: scleroderma, systemic sclerosis, anxiety, depression

SUBSEQUENT FETAL DECOMPENSATION IN A CASE OF ACUTE ULCERATIVE COLITIS DURING PREGNANCY

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Background: Inflammatory Bowel Disease (IBD) is represented by a group of diseases characterized by chronic inflammation of the gastrointestinal tract. The two major types of IBD are known as Crohn's Disease and Ulcerative Colitis (UC). **Objective:** The aim of this report is to emphasize an acute episode of UC during pregnancy, its management, and last but not least the negative effects upon the fetus. **Material and methods:** This case report presents a 28-year old woman, 34 weeks pregnant, who came to Cuza-Vodă Obstetrics & Gynecology Hospital, Iaşi, accusing bloody diarrhea with mucus, as well as cramp-like abdominal pain. At the admission, the patient presented an inflammatory syndrome characterized by high levels of CRP and hypokalaemia. In order to establish a certain diagnosis of the patient, the following examinations were performed: flexible sigmoidoscopy and biopsy, and histopathological examination. As far as the fetus' condition was concerned, a Doppler ultrasound and a cardiotocography were accomplished. **Results:** According to these examinations and the patient's symptomatology, the diagnosis of acute UC was set out for the mother. Furthermore, treatment with Hydrocortisone, double antibiotherapy, and hydroelectrolytic repletion was administered, initially having a favorable evolution. Regarding the fetus, the results revealed uterine contractions and normal blood flow through the umbilical artery. After 36 hours since the admission, the woman's general status had suddenly worsened and an MRI was performed. It showed toxic megacolon and acute fetal decompensation. Therefore, an emergency C-section was performed, so the patient gave birth prematurely to an alive newborn with an Apgar score of 7 in the first 10 minutes, hemodynamically and respiratory stable. **Conclusions:** Acute onset of UC during pregnancy is uncommon and it's important to work with a high-risk obstetrician and a gastroenterologist specializing in UC, so this type of case should be properly managed.

Keywords: Ulcerative colitis, pregnancy, fetal decompensation

USE OF DIFFERENT IMAGING TECHNIQUES FOR THE ASSESSMENT OF VALSALVA SINUS FISTULA-CASE PRESENTATION

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Background: : Valsalva Sinus fistulas to the right cardiac chambers are an infrequent pathology, being present in 0.09% to 0.15% of cases, and accounts for up to 3.5% of all congenital cardiac anomalies. It may be congenital or acquired and usually a coexisting cardiac lesion might be present, causing symptoms of heart failure. Echocardiography (TTE or particularly TEE) can usually provide all necessary diagnostic data for safe surgical treatment. **Objective:** Our objective is to highlight the importance of using different imaging techniques in order to assess rare cardiac malformations. **Material and methods:** We present the case of a 29 years old female, admitted to the Cardiology Clinic from Targu-Mures. Known for medium mitral and tricuspid insufficiency, she presented palpitations and fatigue at medium/high efforts. A III/6 systolic murmur was detected at every point of auscultation and a systolic-diastolic one at the aortic point. The ECG revealed first degree AV block. Transthoracic echocardiography showed severely dilated and hyperkinetic left and right ventricles with a dyskinetic apical segment of the free wall of RV, dilated aortic root and possibly a malpositioned septal tricuspid valve. Abnormalities of the coronary arteries were ruled-out by cardiac CT. A Valsalva sinus fistula to the RV causing a raise in pulmonary output ($Q_p/Q_s = 2,75$) and precapillary pulmonary hypertension was confirmed at cardiac catheterization. The cardiac MRI revealed, on the other hand, a fistula between Valsalva sinus and the right atrium. During surgical correction, a communication between non-coronary sinus and right atrium and also a patent foramen ovale were discovered. Both of the cardiac defects were closed successfully by suture. **Results:** The post-intervention evolution was favorable and the long-term prognostic is very good. **Conclusions:** Non-coronary sinus fistula represents 5% of total types of Valsalva sinus fistulas. Such cases are rarely encountered and emphasize

the importance of using different imaging techniques for proper diagnosis.

Keywords: Valsalva sinus fistulas, transthoracic echocardiography, cardiac catheterization, cardiac MRI

HISTOPATHOLOGICAL FEATURES CLUES IN A CASE OF AUTOSOMAL RECESSIVE POLYCYSTIC KIDNEY DISEASE: AN AUTOPSY CASE.

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Background: The autosomal recessive polycystic kidney disease (ARPKD) represents a part of the congenital hepato-renal fibrocystic syndrome. ARPKD has a high morbidity and mortality risk in children in the first decade of life. It is characterized by ectasia of the renal collecting ducts and hepatic biliary ducts, associating with fibrosis of both liver and kidneys. **Objective:** We present a rare case of a premature newborn girl (33 weeks), who lived only 17 hours. **Material and methods:** To establish the cause of death, a full autopsy was performed at the Institute of Forensic Medicine of Targu Mures. **Results:** On autopsy examination, collapsed lungs and markedly enlarged kidneys with small cysts in cortex and medulla, perpendicular to cortical surface were revealed. At microscopy, the lungs exhibited alveolar hemorrhage and edema, alveolar collapse, pulmonary capillary congestion, and hyaline membrane formation. There was a cystic transformation of the kidneys. In a characteristic feature of ARPKD, all cysts were elongated, radially arranged and lined by cuboidal or flattened cells. Normal nephrons were seen. The liver was consisted of dilated intrahepatic biliary ducts associated with portal fibrosis and proliferation of portal bile ducts. **Conclusions:** The histological aspect of the liver and kidney fragments was suggestive for ARPKD. The cause of death was the respiratory distress syndrome previously known as hyaline membrane disease, which occurs as a consequence of the prematurity.

Keywords: premature newborn, hyaline membranes, ARPKD

VLBW NEWBORN WITH 4 GRADE INTRAVENTRICULAR HEMORRHAGE - A PERMANENT CHALLENGE IN THE NEONATAL INTENSIVE CARE UNIT

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Background: The Very Low Birth Weight (VLBW) newborn has the body weight between 1000-1499 grams. Generally, VLBW newborns are associated with prematurity. A severe neurological complication is intraventricular hemorrhage which is associated with high rate of mortality. Today these patients are still a permanent challenge in the Neonatal Intensive Care Unit. **Objective:** The aim of our case report is to show the challenges in therapy management in a VLBW newborn with 4 grade intraventricular hemorrhage in Neonatal Intensive Care Unit. **Material and methods:** We present the case of a premature newborn with Apgar Score 3 at 1 minute, born in the ambulance, derived from an unmonitored pregnancy. At birth the newborn had no spontaneous breathing, presented bradycardia and was non-reactive. After stabilization in a First Level Neonatal Care Unit, the newborn, who weighed 1000 grams, was transferred with the Mobile Neonatal Intensive Care Unit to a Third Level Neonatal Intensive Care Unit. Here the transfontanelar ultrasonography revealed a 4 grade bilateral intraventricular hemorrhage although a therapy with heparin and phenobarbital was initiated. The newborn had noninvasive ventilation with CPAP, gavage feeding, treatment of primary apnea, phototherapy and antibiotic therapy. **Results:** In evolution he developed the specific complications of prematurity and he received supportive care and treatment. Because there is no therapy to stop progress of intraventricular hemorrhage, the challenges was to keep the newborn hemodynamically as stable as possible and to stop the development of hydrocephalus. **Conclusions:** The early time initiation of treatment is very important for VLBW newborns' evolution and they should be born in specialized centers with a Neonatal Intensive Care Unit where rapid and specific treatment will lead to lower complication rates and a better prognostic.

Keywords: VLBW, Neonatal Intensive Care Unit, complication, IVH

PAS POSITIVE MYELOBLASTS IN ACUTE MYELOMONOCYTIC LEUKEMIA: A CASE REPORT

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Background: Acute monomyelocytic leukemia (AMML) is a type of acute myeloblastic leukemia defined by a bone marrow population of myeloblasts, monoblasts and promonoblasts greater than 20%. **Objective:** The purpose of this work is to present an atypical case of AMML in which the myeloblasts turned out PAS positive. **Material and methods:** A 79-year-old male patient presented with pancytopenia. The bone marrow exam showed an infiltration of blasts, approximately 49% represented as myeloblasts and 24% as monoblasts and promonocytes. The erythroblastic and granulocytic lines were poorly represented and megakaryocytes were scarce. Immunophenotyping revealed 2 types of population. The first one (35-40%) displayed markers pertaining to myeloblasts (CD34: 78%; CD13: 90%; CD33: 30%; CD117: 55%; HLA-DR: 84%), while the second (20-25%) showed markers related to monoblasts (CD34: 20%; CD13: 95%; CD33: 95%; CD15: 75%; CD14: 60%; CD64: 70%; CD11b: 87%; HLA-DR: 90%; CD56 negative). The lymphoid line specific markers (CD1a, CD2, CD3, CD5, CD7, CD10, CD19, CD22) were negative for both populations, as well as CD41a and CD42b. Cytochemical examinations were also performed, showing atypical results. The peroxidase test was negative, while the PAS stain showed positive results for myeloblasts. **Results:** Based on immunophenotyping, the diagnosis of acute myelomonocytic leukemia was established. **Conclusions:** Cytochemical tests may occasionally show peculiar results, immunophenotyping being essential for the final diagnosis.

Keywords: AMML, PAS positive myeloblasts, immunophenotyping

NON SMOKER YOUNG ADULT WITH PULMONARY ADENOCARCINOMA. CASE REPORT

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Background: Lung cancer is the neoplasm with the highest mortality, very aggressive and rapidly evolving, often due to delayed diagnosis, the symptomatology being absent in the early stages. The most common etiology involved is cigarette smoking, responsible for 80-90% of cases. Non-smokers account for 10-15% of lung cancer cases, often of adenocarcinoma type, these cases often being attributed to a combination of genetic factors, radioactive gas, asbestos, air pollution, including passive smoking. **Objective:** We present the case of a 34-year-old non-smoker patient with a history of asthma, who presents in the Pneumology department accusing of dyspnea, transpiration, unmeted fever, diffuse posterior chest pain, back pain. **Material and methods:** Heredocolateral history, insignificant, from the personal pathological history-recently diagnosed with the imaging lung tumor, histopathologically confirmed (adenocarcinoma) by excision-supraclavicular ggl biopsy, because the lung biopsy could not be performed. Molecular analyzes of the lymph node demonstrated absence of EGFR gene mutations and the presence of Alk rearrangement. CT examination shows right lower lobe atelectasis, bilateral pleurisy, bilateral GSR secondary determinations, multiple RP tumor masses, peritoneal, basin level, ascites. During the hospitalization period, the evolution was initially favorable, under treatment. Subsequently, the patient expectorated three fragments of lung tissue, of irregular shape, of elastic consistency, with dimensions of 27x17x5 mm, which were fixed and sent for histopathological examination, which confirmed the initial diagnosis of adenocarcinoma. **Results:** The patient was transferred to the Oncology Service, for initiation of treatment. Based on the low performance index and the histopathological and molecular analyzes, the treatment option was tablet chemotherapy. The evolution under the oncological treatment was extremely unfavorable, with the installation of the respiratory insufficiency. **Conclusions:** After one month of chemotherapy and palliative treatment, the patient has died. The lung cancer is suffering from an unfortunate prognosis, with an extremely low survival.

Keywords: pulmonary adenocarcinoma, secondary ganglionic determinations, molecular analysis

DILATED CARDIOMYOPATHY OF UNKNOWN ETIOLOGY IN A YOUNG WOMAN

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Background: Dilated cardiomyopathy is a disorder characterized by chamber dilatation and cardiac dysfunction. In many patients there is no obvious cause for the disorder, which is why advanced investigations such as cardiac magnetic resonance imaging (CMRI) and endomyocardial biopsy are required. **Objective:** The aim of this study is to demonstrate the complex management of a severe case of dilated cardiomyopathy in terms of diagnosis and establishing etiology. **Material and methods:** We present the case of a 41-year-old woman, obese, with Hashimoto thyroiditis, hypothyroidism on substitutive treatment and diagnosed in 2014 with dilated cardiomyopathy. The patient denied using alcohol and drugs, complications during delivery, any heart issues or family history of sudden death or cardiomyopathies. **Results:** Patient was admitted with symptoms and signs of heart failure. Resting electrocardiogram showed prolonged PR interval (200 msec), prolonged QT interval (512 msec), negative P waves, flattened T waves in V5 and V6. The 24-hour Holter monitoring revealed numerous episodes of non-sustained ventricular tachycardia, one episode of non-sustained posterior fascicular ventricular tachycardia and premature ventricular complexes. Transthoracic echocardiography showed an impaired ejection fraction (LVEF=15%) with dilation of left ventricle, moderate mitral, tricuspid and pulmonary valve regurgitation and severe pulmonary hypertension. Echo criteria for left ventricle dyssynchrony were present. CMRI examination does not reveal any myocardial scar. Advanced treatment of heart failure was initiated with selective beta-blockers, sacubitril/valsartan combination and diuretics. Amiodarone treatment was contraindicated (long QT syndrome and hypothyroidism). Patient will be referred for cardiac resynchronization therapy and implantable cardioverter. Heart transplantation is disputable. **Conclusions:** Dilated cardiomyopathy is a severe disease, mainly due to the debilitating nature of the complications and difficulties in treatment. Carefully monitoring of these patients is required to prevent complications.

Keywords: dilated cardiomyopathy, young, woman

COMPARATIVE STUDY OF HYPOCHONDRIAC SYMPTOMS: MEDICAL STUDENTS VERSUS NON-MEDICAL STUDENTS

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Background: Hypochondria is characterized by a persistent, fearful concern about the possibility of suffering of one or more life-threatening disease. This concern is accompanied by a catastrophic interpretation of the physical signs, including the normal sensations of the body and it is manifested by excessive behaviors or maladaptive avoidance behaviors in relation to the state of health and it persists despite a correct medical evaluation. **Objective:** The purpose of this paper is to determine hypochondria and medical anxiety among medical students as well as to compare medical students with students of other faculties regarding the degree of medical anxiety. **Material and methods:** In order to evaluate the existence of hypochondria in students, a cross-sectional study was performed using a questionnaire that was applied using an online form. A sample of 1000 students from both medicine and other specialties was targeted. Statistical analysis was performed using SPSS, version 22, Chicago, IL, USA. Statistical significance was established against a threshold value $p=0.05$, below this threshold we had significant relations. **Results:** Of the total of 1031 students, 785 (76.1%) declared themselves concerned about their health, of which 446 (79.5%) study medicine and 339 (72.1%) are non-medical students. 292 (52%) of all medical students think instinctively of a disease when they have a physical pain. 61.1% of medical students experience certain symptoms after hearing about a disease, while only 54% of non-medical students answered yes to this question. By applying the Man-Whitney test, a statistically significant difference ($p=0.0001$) between the medians was identified. (14.00 for medical students and 8.00 for non-medical students). **Conclusions:** Students who study medicine worry more about their health than those who study at other faculties. Female students are more concerned about their health. Medical students have symptoms of hypochondria more pronounced than students from other specialties.

Keywords: hypochondria, medical student, health anxiety

ABSCESS OR TUMOR? THAT'S THE QUESTION. A CASE REPORT

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Background: Gastrointestinal stromal tumours (GIST) are the most frequent tumours of mesenchymal origin; but often misdiagnosed, as they are still a rather rare pathology. As there is no other particular condition associated with this disease, apart from those included in the Carney Triad, comorbidities can often mask the symptoms and contribute to the misdiagnosis. **Objective:** We report the case of a 70-year-old patient who is admitted to the ER with severe abdominal pain, nausea and lack of appetite in the days prior to the hospital visit. Abdominal CT scans show a mass of unknown aetiology that occupies the small bursa omentalis and a decrease in the layer distinction of the gastric wall structure, raising suspicion for a gastric GIST. Endoscopic findings include an antral mass protruding in the gastric lumen and pus flowing through a fistula in the first jejunal loop. The patient undergoes a classic laparotomy, where a fistulated abscess is found. Extensive drainage and lavage are done and he is discharged with an alimentary jejunal stoma. **Material and methods: Results:** The tumour was not detectable during the surgical procedure and could have been missed, had endoscopy not been performed beforehand. **Conclusions:** Endoscopy is instrumental in establishing the diagnosis of gastrointestinal stromal tumours. As it is not a common one, this pathology can easily be missed, especially when hidden by other, more often found, diseases.

Keywords: GIST, ABSCESS, ACUTE PANCREATITIS, ENDOSCOPY

TRANSPOSITION OF THE GREAT ARTERIES AND COARCTATION OF THE AORTA IN THE NEONATAL PERIOD

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Background: Transposition of the great arteries is one of the most frequent cyanotic congenital heart disease and its severity varies from patient to patient depending on other associated defects. The diagnosis of coarctation of the aorta is difficult in the neonatal period. The association of these two defects is rarely seen in medical practice. **Objective:** To show the importance of optimum preoperative management of a newborn with transposition of great arteries and coarctation of the aorta. Rashkind Septostomy and continuous infusion with Prostaglandine E1 are the main therapeutic approach in this period. **Material and methods:** We present the preoperative management of a newborn diagnosed in the prenatal period with transposition of the great arteries and coarctation of the aorta. After birth, the newborn was admitted in the Neonatal Intensive Care Unit, where the diagnosis was confirmed by the pediatric cardiologist. Rashkind Septostomy for ensuring the efficient mixing and continuous infusion with Prostaglandin E1 were performed immediately after birth. **Results:** The evolution was favorable, the newborn being monitored in the Neonatal Intensive Care Unit until the surgery was performed. **Conclusions:** For improving the prognosis, it is important for newborns with severe congenital heart malformation to be born in a specialized center in order to ensure the appropriate diagnostic and treatment.

Keywords: transposition, Rashkind, prostaglandine

PSYCHOSOCIAL IMPACT OF ACNE VULGARIS AMONG MEDICAL STUDENTS

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Background: Acne vulgaris is a chronic inflammatory disorder of the pilosebaceous unit which can often leave behind hyperpigmentation and residual scarring. As acne usually appears on the face, its presence can change one's body image perception. Acne has a negative impact that can continue long after the active lesions have been treated. **Objective:** The objective of this study was to determine the psychological sequelae of acne vulgaris among medical students in Romania. **Material and methods:** A cross-sectional study was conducted during the period from October to November 2019, using a questionnaire that was distributed in medical universities from

Romania using an online form. Data collected were analyzed by SPSS version 22, Chicago, IL, USA, using Chi-square test. P-value ≤ 0.05 was considered statistically significant. **Results:** The study was conducted on 466 students from which 422 were women and 44 were men. Facial type of acne was the most common clinical presentation (98,8%). Acne can cause frustration (50,42%), lack of self-confidence (60%) anxiety (37,7%), shame (33,9%), anger (28,32%), minimum difficulties in regards to studying (7,7%), intimate difficulties related to acne located inguinal ($p=0.007$), disruption in daily social activities depending on the severity of the acne: participation in social activities ($p=0,002$), shared spaces/fitting rooms use or wearing a bathing suit in public ($p=0,001$). Also, it is affecting interpersonal relationships in different amounts: less (39,5), much (13,9%) and very much (3,6%), along with physical symptoms, most frequently - pain (45,7%). **Conclusions:** Significant impact of the skin problem was noted on daily activities, emotions, interpersonal relationships and study. Counseling beside efficient treatment is fundamental to minimize acne vulgaris-related social and emotional sequelae. It is of considerable importance to have easy access to mental health services for students with diseases such as acne vulgaris that can lead to emotional distress and impaired functioning.

Keywords: acne vulgaris, psychosocial, impact, medical students

A DELAYED RESPONSE: CASE SERIES OF ALLERGIC CONTACT DERMATITIS WITHIN EPITHELIZED TATTOOS, CAUSED BY DIFFERENT CONTACT ALLERGENS

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Background: The making process of tattoos presumes in an invasive introduction of pigments into the dermo-epidermal junction, resulted in an open wound, which heals by using specific ointments. Allergic contact dermatitis (ACD) is a response to allergen agents and it is described to be caused by tattoo ink and treating liniments. **Objective:** Our aim was to diagnose and treat 3 cases of cutaneous reactions, within epithelized tattoos. **Material and methods:** We present cases of papular rashes in 3 different tattoos owned by young, healthy patients, which appeared suddenly 2 weeks post- tattooing, on the surface of already epithelized tattoos. Clinical hallmarks were similar in all 3 cases. **Results:** Dermatological examination revealed multiple, disseminated skin-colored and slightly erythematous, pruritic papules. All patients revealed a similar time frame of the appearing symptoms. According to patient 1, a dexpanthenol 5% ointment was used for healing- promotion and patch- testing of the tattoo ink was performed and negative. The rash extended the tattoo's site, leading to the clinical conclusion of dexpanthenol causing the reaction. Patient 2 presented eruptions exclusively on the red pigmented area. He also applied dexpanthenol 5% for healing. He was patch- tested for black and red tattoo inks. Red pigments gave positive allergic results. Patient 3 also presented a rash extending the tattoo's area. He used petrolatum for healing and due to a previous similar reaction in a tattoo, he was patch-tested negative to black tattoo ink. We concluded that petrolatum caused the rash. Mometasone furoate 1mg/g ointment was prescribed to all patients. Symptoms regressed within a few days in all cases. **Conclusions:** ACD is a delayed-type response to a variety of contact allergens, such as tattoo ink, dexpanthenol or petrolatum. Response to these agents can occur over time. Literature describes several cases of ACD in tattoos.

Keywords: allergic contact dermatitis, tattoo, contact allergens, delayed response

MOLLUSCUM CONTAGIOSUM OVER A HEALED TATTOO

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Background: Molluscum contagiosum is an infection caused by a homonymus poxvirus. It is benign and characterized by multiple lesions that may appear anywhere on the body. It spreads through direct contact or contaminated common objects. The infection typically heals without scarring in 6-9 months. Weakened immune system, atopic dermatitis or crowded warm climates can represent risk factors for developing Mollusca. Tattooing is a highly popular trend, which implicates the invasive and traumatic opening of the skin tissue, hence compromising the skin against infections. **Objective:** Our aim was to diagnose and treat a group of eruptions on a healed tattoo, which appeared after an accidental excoriation of the skin. **Material and methods:** We present the

case of a 21 year old, healthy Caucasian male, who presented in the clinic with multiple isolated Mollusca-like papules on a 5 month old tattoo. According to the patient the lesions appeared after an accidental excoriation of the area, by a table corner in a pub. Serology examination was performed, to rule out any type of immunodeficiencies. Patient declared administrating medication for common cold. **Results:** Dermoscopic examination revealed multiple, central, navel-like bright papules, excreting a white substance, when squeezed, on a median 3 centimeter long excoriation of the tattooed area. Serology examination tested negative for syphilis, hepatitis B, C and HIV. Patient suffered from common cold and was medicating with afferent treatment, hence immunocompromised. Biopsy of the lesions were not performed, due to typical clinical hallmarks, that confirmed our diagnosis of Molluscum contagiosum. Lesions were squeezed and topical iodine swabbing was prescribed to be administrated along with systematic anti- viral medication. **Conclusions:** Molluscum contagiosum is a non-complicating viral infection, which can resolve spontaneously. In our case the accidental excoriation of the skin was presumed to represent a gateway for infectious inoculation.

Keywords: molluscum contagiosum, tattoo, skin excoriation, viral infection

LATE DUMPING SYNDROME IN PATIENT WITH TOTAL GASTRECTOMY FOR AUTOIMMUNE GASTRITIS COMPLICATED WITH MULTIPLE GASTRIC ADENOMATOUS POLYPS AND ADENOCARCINOMA- A CASE REPORT

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Background: Chronic autoimmune atrophic gastritis is an inflammatory disease characterized by the immune-mediated destruction of gastric parietal cells in the fundus and body of the stomach, impairing the intrinsic-factor availability, resulting in pernicious anemia. Following the hypothesis of an atrophy-metaplasia-dysplasia-carcinoma sequence, the chronic autoimmune gastritis with intestinal metaplasia can lead to the appearance of adenomatous polyps, which can transform into gastric adenocarcinoma. **Objective:** Presenting the follow up of a total gastrectomy for multiple polyps in patient with atrophic gastritis. **Material and methods:** We report a case of a 45 years old woman admitted in may 2013 for abdominal pain in the right flank and epigastrium, bloating and nausea. Laboratory tests revealed Biermers anemia, while endoscopy revealed the presence of numerous polyps at the antro-corporeal junction and a large one below cardia. Pathological evaluation of biopsies taken from both gastric mucosa and proliferative masses revealed atrophic autoimmune gastritis, respective tubulovillous gastric adenoma with high-grade dysplasia. The patient underwent a total gastrectomy, pathological evaluation confirming adenocarcinoma. In the following years the patient complained of decreased appetite, bloating, mild epistaxis, fatigue and abdominal discomfort, with no significant finding on imagistic or clinical evaluation. After seven years from surgery repeated episodes with visual disturbances and dizziness occurred. **Results:** The cell blood count being normal, anemia is excluded as the cause of the recent symptoms. A glycaemia level of 4.2 mmol/l associated with dizziness episodes, supports a reactive hypoglycaemic status as part of the late dumping syndrome. **Conclusions:** Our patient had a successful outcome after the resection of an underlying cancerous threat, but developed a late complication caused by imbalance in insulin secretion in a total gastrectomy. The total resection was necessary for turning a malignant disease into a metabolic disorder which is manageable under nutritional surveillance and treatment. The surgical intervention maintained the quality of life with only mild complications.

Keywords: total gastrectomy, gastric adenocarcinoma, dumping syndrome, hypoglycemia

VIVID CLINICAL MANIFESTATION IN A CASE OF PNEUMONIA - CASE PRESENTATION

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Background: Pneumonia is the inflammatory condition of the lungs' parenchyma affecting primarily the alveoli. **Objective:** The aim of this paper is to present the case of a 34-year-old patient diagnosed with pneumonia after a type B flu episode. **Material and methods:** Firstly, type B flu was diagnosed. The patient underwent treatment with Oseltamivir for 5 days up until she was admitted in the hospital accusing fever (40°C), chills, cough, nausea and

vomiting with food and biliary contents. The auscultation of the lungs revealed a tightened vesicular sound located at the low right (LR) lung and a tracheal sound at the upper right (UR) and middle right (MR) lung. Afterwards, the patient was scheduled for an X-ray and chest CT. **Results:** The chest X-ray revealed a macronodular opacity of 10/10 cm, slightly inhomogeneous, visible near the right hilum. CT detected small alveolar infiltrates with a tendency towards apical confluence (LR lung) and an extended pulmonary condensation process (UR and MR lung), hepatosplenomegaly and biliary lithiasis. Laboratory test results showed: leukocytes $14.43 \cdot 10^3/\mu\text{L}$ ($4.0 \cdot 10.0 \cdot 10^3/\mu\text{L}$), C-reactive protein 196 mg/L (0-10 mg/L), procalcitonin 13.27 ng/mL (0-0.5 ng/mL) which indicated the presence of an inflammatory reaction. The diagnosis of pneumonia was established and followed by treatment. The patient received Teicoplanin (400mg, 1 phial daily), Meropenem (3g daily), symptomatic drugs (Metamizole, Pantoprazole, Metoclopramide, Paracetamol) and probiotics. **Conclusions:** Pneumonia was triggered on a low immunity background due to influenza B virus and together with the associated pathology of the patient resulted in this vivid clinical manifestation. Complications of pneumonia may include pulmonary abscess, meningitis, endocarditis therefore, it should not be treated superficially.

Keywords: Pneumonia, Influenza, Low immunity

CLOSTRIDIUM DIFFICILE INFECTION AND ADVERSE REACTION TO CHEMOTHERAPY - A DIAGNOSIS PROBLEM

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Background: Clostridium difficile (CD) is an anaerobic, gram-positive bacterium, which usually colonizes the large intestine in humans. This is one of the most common cause of nosocomial infections and its manifestations are: diarrhea (> 3 stools / day), abdominal pain, fever, nausea and vomiting. **Objective:** The aim of this paper is to present the case of a patient diagnosed with CD infection on the background of immunodeficiency caused by the chemotherapy he follows. **Material and methods:** A 54-year-old male, recently diagnosed with anaplastic T lymphoma (for which he follows chemotherapy) was admitted in the hospital accusing abdominal pain, runny diarrhea (more than 5 stools a day) for 3 days and fever ($38,5^\circ\text{C}$). Even though diarrhea and abdominal pain can be side effects of the chemotherapy the high fever was a sign of a possible infection considering the immunodeficiency caused by his treatment. We decide to send a stool sample to the laboratory in order to confirm the infection hypothesis. **Results:** The two CD specific toxins (toxin A and toxin B) were confirmed in the stool and the diagnosis of CD infection was established. Vancomycin and symptomatic treatment were administered to the patient. Symptomatology relapsed and our patient is free of CD infection. **Conclusions:** Making a differential diagnosis between CD infection and side effects of chemotherapeutical treatment is not an easy task considering the clinical similarities. We want to raise the awareness about this aggressive infection that can lead to: dehydration, kidney failure, bowel perforation and toxic megacolon since it is vastly spread in the local and international medical system.

Keywords: Clostridium difficile, chemotherapy, nosocomial infection

AN ATYPICAL CASE OF CARDIAC TAMPONADE IN PREGNANCY

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²

Background: Cardiac Tamponade in pregnancy is an emergency and rare condition, most commonly encountered in the third trimester. Sometimes, in pregnancy, it can be difficult to distinguish common signs such as peripheral oedema, dyspnoea or hyperventilation are physiologic or pathological. **Objective:** We aim to present a case of a 24 years-old gravida 3, para 2 at 16 weeks of gestation with a 7-day history of worsening dyspnoea with orthopnoea and New York Heart Association class IV, without previous comorbidities. **Material and methods:** The clinical examination shown pulse of 122 beats per minute associated with low blood pressure (100/ 70 mmHg), respirations of 25 per minute and an oxygen saturation of 95%. The heart sounds were tachycardic and distant, no

jugular distention or peripheral oedema noted. Routine laboratory investigations discovered elevated levels of C reactive protein and leucocytosis. Electrocardiogram shown only sinus tachycardia. Transthoracic echocardiography revealed massive pericardial fluid collection with "swinging heart" morphology suggestive for cardiac tamponade. The fetal monitoring performed by the obstetric team demonstrated no abnormalities and the pericardiocentesis under hemodynamic monitoring it was performed. **Results:** 350 mL of serous fluid was drained from the pericardial space. Cultures of pericardial liquid were sterile. Malignant cells were absent. After pericardiocentesis the patient vital signs normalized. The control echocardiography revealed pleurisy associated with pulmonary condensation and no re-accumulation of pericardial fluid. **Conclusions:** This case highlights that cardiac tamponade in the pregnant woman is a rare and life-threatening condition which implies not only the mother but also the fetus. Sometimes the common findings in pregnancy may be the underlying aetiology for a serious cardiac disease complicated by a common pneumonia. In this case a multidisciplinary approach is essential for better maternal and fetal outcomes.

Keywords: cardiac tamponade, pregnancy, echocardiography

OPTIC NEURITIS ASSOCIATED WITH MULTIPLE SCLEROSIS: MAGNETIC RESONANCE IMAGING AND VISUAL EVOKED POTENTIALS

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Background: an eloquent number of patients suffering from multiple sclerosis (MS) experience acute retrobulbar optic neuritis (RBON). Furthermore, RBON may manifest in subclinical form, where paraclinical investigations such as visual evoked potentials (VEP) are highly sensitive diagnosis tests **Objective:** to evaluate multiple sclerosis associated optic neuritis, both acute and subclinical forms **Material and methods:** we conducted a prospective, observational study of 30 patients presenting to the 1st Neurology Clinic, Mures County Emergency Hospital, with magnetic resonance imaging (MRI)-confirmed MS or RBON without MRI-confirmed MS. We evaluated the patients both clinically and paraclinically, respectively using a questionnaire, MRI examination and the VEP results. We studied the latency (L, values over 110ms were considered prolonged) and the amplitude (A, values under 5μV were considered reduced) of the P100 waveform performing monocular stimulation pattern-reversal VEP **Results:** The patients were diagnosed as follows: 23 (77%) were diagnosed with relapsing-remitting multiple sclerosis (RRMS), 3 (10%) with secondary progressive multiple sclerosis (SPMS), 4 (13%) with acute RBON without a diagnosis of MS. The eyes affected by acute RBON had the following VEP results: 100% L P100 prolongation, 80% A P100 reduction, 20% normal A P100. The eyes affected by RBON previously in the development of the MS had the following results: 86% L P100 prolongation, 14% normal L P100, 43% A P100 reduction, 57% normal A P100. The eyes without a history of RBON had the following results: 59% L P100 prolongation, 41% normal L P100, 38% A P100 reduction, 62% normal A P100. **Conclusions:** the patients with confirmed acute RBON had conspicuous clinical and paraclinical signs of optic nerve distress, but there was also a considerable number of patients with subclinical RBON revealed by VEP results.

Keywords: optic neuritis, multiple sclerosis, visual evoked potentials, magnetic resonance imaging

A RARE CASE OF A GIANT MYXOMA

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Background: Primary intracardiac tumors are rare (up to 0.5% in autopsy series) and approximately 50% of them are myxomas. The majority of myxomas are located in the left atrium and present variable clinical manifestation. Because of nonspecific symptoms, early diagnosis may be a challenge. **Objective:** Our aim is to present a rare case of a giant myxoma and its surgical treatment. **Material and methods:** A 71 years old male known with atrial fibrillation and high blood pressure presented at the cardiology examination dyspnea, intense precordial pain and irregular heart beats. At first, it was performed an ECG with a normal aspect of atrial fibrillation, a high frequency, and the QRS complex deviated to right. The echocardiography showed a tumoral formation in the left atrium, near the origin of the left pulmonary vein. Also, he has a mitral valve obstruction and severe mitral and tricuspid insufficiency associated with severe pulmonary hypertension. It was performed a surgical removal of the atrial

myxoma by median sternotomy **Results:** The postoperative period was uneventful, dyspnea and precordial pain disappeared. There were no signs of recurrence of myxoma on echocardiography **Conclusions:** Atrial myxoma consists a possible cause of dyspnea or intense precordial pain, in old age male patients, despite the fact that the issue occurs with a higher frequency in women. Most patients with cardiac myxomas present with a minimum of one amongst the classic triad of symptoms, which include embolism, intracardiac obstruction, and constitutional symptoms that leads to shortness of breath associated with palpitations. Echocardiography represents the "gold standard" test in the diagnosis of the anomaly. Furthermore, the method also serves in monitoring the lesion's evolution after the excision procedure. Swift surgical management is recommended in all patients and it should be treated as soon as possible.

Keywords: atrial myxoma, intracardiac tumor, echocardiography

SECOND LINE IMMUNOTHERAPY WITH NIVOLUMAB IN A PATIENT WITH STAGE IV ADENOCARCINOMA OF THE LUNG- A CASE REPORT

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Background: Two randomized phase III studies provided cumulated long-term results, comparing second line treatment with nivolumab versus docetaxel in advanced non-small-cell lung cancer. **Objective:** To evaluate the benefit of second line immunotherapy with nivolumab, a PD1 checkpoint inhibitor, and palliative radiotherapy, after first line chemotherapy in a patient with stage IV adenocarcinoma of the lung. **Material and methods:** A 50 years old male, smoker, 30 years-pack indices, with gastric ulcer resected in 1994, with a history of left posterior thoracic pain. An MRI identified an osteolytic lesion on the 10th rib and the CT scan showed in addition a 25 mm nodule in the LUL and a 7mm nodule in the LLL. Atypical resections of the nodules and the osteolytic lesion of the rib were performed on 18.08.2017. **Results:** The pathologic exam revealed a G2 adenocarcinoma of the lung (ALK and EGFR negative) pT4 (nodules in different lobes) pNx (no lymphadenectomy) M1(metastases in the rib and pleura), with unspecified margins. Chemotherapy with Gemcitabine and Carboplatin was given for 6 cycles between 06.09.2017 and 15.01.2018, with hematologic toxicity and imagistic complete response. On 17.08.2018 the CT scan and consequent PET CT revealed a local-regional (2 para-aortic new nodules) and distant progression of the disease with metastases on the 7th and 10th ribs. Palliative radiotherapy, 20Gy/5 fractions, was administrated on the painful 7th rib and second line treatment with nivolumab, 240 mg iv every 2 weeks, was started on 12.11.2018. Until February 2020 the patient received 33 cycles with no adverse events, obtaining a complete response certified by two CT scans and a PETCT. **Conclusions:** We would like to emphasize the synergistic effect of the radiotherapy with abscopal effect, with nivolumab, a check-point inhibitor in second line treatment, after chemotherapy in a patient with stage IV adenocarcinoma of the lung, obtaining 16 months progression free survival.

Keywords: Lung adenocarcinoma, abscopal effect, Nivolumab, progression free survival

MANAGEMENT OF TYPE 2 DIABETES MELLITUS ON A BACKGROUND OF REPEATED INFECTIONS – CASE PRESENTATION

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Background: Type 2 Diabetes Mellitus (T2DM) is a chronic disease that increases susceptibility to various infections. Moreover, the severity of the infections is usually increased to a level where complications quickly reach a dangerous degree. **Objective:** We aim to underline the importance of preventing infections in patients with T2DM. We aim to underline the importance of preventing infections in patients with T2DM. **Material and methods:** Our patient is a 58 years old male diagnosed with: myasthenia gravis, 3rd grade obesity, arterial hypertension, obstructive sleeping apnoea and T2DM (since 2008). His blood sugar levels were balanced and he presented a good general condition until 2017. Since then, he has developed respiratory tract infections and an inoperable recurrent anal cyst that never healed properly. As soon as antibiotic treatment was introduced, his glucose levels started raising until his glycosylated haemoglobin reached 11% and his kidney function declined. After several

hospital admissions due to respiratory distress, poor renal function, severe metabolic acidosis and glucose values over 500mg% all caused by pulmonary tract infections, his insulin resistance increased. He developed renal failure stage 3B (serum creatinine: 92, estimated glomerular filtration rate 35mL/min) and is now under treatment with Insulin Aspart (Novomix) 30, Repaglinidum 2mg, Metforminum 1g with glucose levels below 200 mg/dL. **Results:** Our patient proves that recurrent infections in diabetic patients can act as a trigger for serious complications and glycemic imbalance. **Conclusions:** Infections should be carefully prevented in cases with Type 2 Diabetes, especially in patients with associated pathologies while they are able to create a great glycemic imbalance. This imbalance is once again proved to be an important catalyst in the evolution of microvascular and macrovascular complications.

Keywords: Diabetes Mellitus, Glycemic Imbalance, Infection

INSULIN AUTOIMMUNE SYNDROME WITH SPONTANEOUS REMISSION AFTER EXPLORATORY LAPAROTOMY - CASE PRESENTATION

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Background: Insulin autoimmune syndrome (IAS, Hirata's disease) is a rare disorder manifested through spontaneous hypoglycemia associated with extremely high circulating insulin levels and positive anti-insulin antibodies. IAS is the third leading cause of hypoglycemia in Japan, being 10-30 times more common in Asia, than western countries. **Objective:** Our goal is to present the autoimmune pathology as the etiological factor of hyperinsulinism, to the detriment of tumor pathology, known as Insulinoma. **Material and methods:** We present the case of a 47-year-old patient with chronic osteoarticular disease, I degree hypertension, I degree obesity and polinodular goiter, known since March 2019 with numerous hypoglycemic episodes, one with loss of consciousness, followed by hospitalization in the Diabetology department. Based on laboratory tests, the levels of Insulin were over 1000 μ Ui/ml and the blood glucose was 48 mg/dl, which led to a suspected Insulinoma. The following investigations were performed for diagnostic purpose; abdominopelvic CT and MRI, without revealing morphological changes or pancreatic nodular lesions. However, after performing SPECT-CT, an accumulation of the radiotracer was found in the pancreatic uncinata process, with possible tumor substrate. For both diagnostic and therapeutic purposes, in the Surgery Department an exploratory laparotomy was performed, but no tumor lesions were found. Although, post-procedure there was a spontaneous remission of the symptoms, further tests revealed increased levels of anti-insulin antibodies (> 500 U/ml) and proinsulin (12,9 pmol/l), which are representative for IAS. **Results:** Currently, the hyperinsulinism is in remission and we recommend to this patient: a normocaloric diet, frequent meals in small quantities, avoiding rapidly absorbed carbohydrates and immunogenic medication, also periodic check every 6 months. **Conclusions:** This case presentation highlights the importance of performing anti-insulin antibody titration in hyperinsulinemia without a clear tumor substrate in order to correctly diagnose the etiology.

Keywords: Insulin autoimmune syndrome, hypoglycemia, exploratory laparotomy, anti-insulin antibodies

FAMILIAL PARTIAL LIPODYSTROPHY SYNDROME - AS A CAUSE OF SEVERE INSULIN RESISTANCE

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Background: Lipodystrophy Syndrome is a rare genetic disease, characterised by a deficiency of the adipose tissue, with compensatory storage of lipids in abnormal compartments such as liver, muscles or in other preferential areas, resulting an unusual appearance of the patient. Leptin, a hormone produced by the fat cells, shows reduced levels, therefore, multiple consequences are expected: severe insulin resistance and hyperinsulinemia; hypertriglyceridemia; hyperphagia and reproductive dysfunctions. Furthermore, non-alcoholic steatohepatitis(NASH), renal insufficiency, heart failure and acanthosis nigricans may occur. **Objective:** The aim of this presentation is to enrich the clinical judgement with the lipodystrophy suspicion when a patient satisfies most of the presented criteria. **Material and methods:** A 59 years old female patient, presented to the Endocrinology Clinic with uncontrolled type 2 diabetes with high levels of requiring insulin (400 UI). At physical examination, a

cushingoid appearance with thin limbs and excessive facio-truncular adipose tissue, BMI=29.9 kg/m² and acanthosis nigricans were noticed. Unexpectedly, her daughter and niece present the same phenotype. The patient is normotensive, has exertional angina, osteoporosis with pathological fracture under treatment. The bioimpedance test revealed an excessive muscle mass. Hepatic enzymes are elevated and HDL level is decreased. **Results:** Other secondary causes of diabetes mellitus were excluded (Cushing syndrome, Hyperthyroidism, Acromegaly). Complement C3, C4 were normal and low levels suggest the partial lipodystrophy subtype. The genetic tests were not accessible to confirm the diagnosis but the clinical findings and metabolic complications support the lipodystrophy diagnosis. The therapy for this patient includes: Metreleptin - a substitute for the lack of organic leptin, Metformin, Insulin, low fat diet and complication's treatment. Further investigations for the daughter and niece are recommended. **Conclusions:** This case draws the attention to the wide etiology of insulin resistance. Lipodystrophy Syndrome should be taken into consideration when a patient presents with high insulin requirements (> 200UI).

Keywords: lipodystrophy syndrome, insulin resistance, leptin

THE IMPACT OF EDUCATION ON THE COURSE OF TREATMENT IN A PAEDIATRIC PATIENT WITH INFLAMMATORY BOWEL DISEASE; A CASE REPORT.

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Background: Paediatric Inflammatory Bowel Disease (IBD) is a complex chronic pathology, often requiring ongoing, tailored treatment. As the parent is responsible for decisions regarding the treatment, sufficient education in the course of the disease, treatment options, and their role in caring for the child are essential. **Objective:** To identify if a case of non-adherence to treatment in a paediatric IBD patient, was influenced by the parent's lack of understanding of the disease and its treatment course. **Material and methods:** A retrospective case report analysis was performed, using the available documentation and an interview of the mother and patient. **Results:** Between the onset of symptoms in October 2017, and the point of interview in August 2019, there were 6 elective changes in healthcare provider. A recurring theme upon presentation was: previous treatment leading to partial remission; cessation of treatment; presentation with an acute episode. During interview, the mother demonstrated she did not fully understand the nature of IBD, as she believed the treatment would act more quickly and have a curative effect, having underestimated the seriousness of the disease. This lack of understanding contributed to the mother opting for homeopathic treatment; she believed the medical treatment was ineffective, as symptoms had not resolved immediately. This was a mistake, as her treatment provided some degree of symptomatic relief; cessation triggered an acute episode with fulminant colitis. This type of decision-making also leads to the non-compliance with treatment, and persistently seeking other treatment options. **Conclusions:** Lack of parental education in chronic paediatric cases can lead to poorly informed decision-making, preventing compliance with treatment plans. IBD medications may take up to 6 months to achieve therapeutic outcomes, therefore strict adherence is essential to maintaining a state of stable remission. If the parent's expectations match said realities, the doctor will be able to develop and fully implement an individualised treatment plan.

Keywords: Paediatrics, Inflammatory Bowel Disease, Parent Education, Compliance with treatment

LATE PRESENTATION OF A MALE PATIENT WITH ACUTE CHOLECYSTITIS THAT NEGLECTED HIS SYMPTOMS, RESULTING INTO CATASTROPHIC CONSEQUENCES

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Background: Multiple organ dysfunction syndrome (MODS) represents a pathology manifested by organ failure, affecting more than one organ. This is caused by a chain of pathological events and it is the main cause of mortality and morbidity in critically ill patients. Unfortunately, there is no effective cure for this disease, only the supportive care with no positive results regarding the prognosis. **Objective:** This case report presents the difficulties in management of patients with a common pathology, which is complicated by systemic inflammatory response syndrome, sepsis and finally MODS. **Material and methods:** We report a case of a 67 years old male

patient, which presented himself at the emergency department with diffuse abdominal pain, jaundice, nausea and vomiting. The hemodynamic and respiratory parameters were normal, with no fever. However, shortly after, the patient's general condition deteriorated rapidly. The laboratory results revealed leukocytosis, severe hepatic cytolysis, very high levels of TB (total bilirubin), predominantly DB (direct bilirubin), increased serum creatinine, high values of CK (creatin kinase) and RPC (reactive protein C), increased procalcitonin and severe metabolic acidosis. The abdominal computed tomography showed an infrarenal abdominal aortic aneurysm with a partial thrombus formation, biliary lithiasis, acute cholecystitis, choledocholithiasis and multiple suspicious hypodense liver lesions which may indicate hepatic abscesses. **Results:** Despite the efforts of maintaining vital functions, in the end the patient went into cardiac arrest and died. An anatomopathological exam was performed with the following findings: over 60 biliary calculi, choledocholithiasis, two intrahepatic abscesses, atheromatous plaque spreaded on the whole mucosal surface of the aorta, the infrarenal abdominal aortic aneurysm and a macroscopic mesenteric infarction on a portion of the small bowel. **Conclusions:** The peculiarity of this case consists in the way in which a common pathology like biliary lithiasis, can complicate with angiocholitis and rapidly advance to developing intrahepatic abscesses, SIRS, sepsis and multiple organ failure syndrome.

Keywords: Multiple organ dysfunction syndrome, Acute cholecystitis, Sepsis

XP11.2 TRANSLOCATION RENAL CELL CARCINOMA: A CASE REPORT

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Background: Xp11.2 translocation renal cell carcinoma (RCC) is a recently described distinct RCC subtype, usually described in children after chemotherapy, but occurring in adults as well, with a worse prognosis. The gene of interest, that involve Xp11.2 chromosome, is TFE3, a member of the microphthalmia transcription factor (MiTF) family. **Objective:** The aim of our paper is to present a case of a rare aggressive subtype of RCC. **Material and methods:** We present the case of a 71-year-old man admitted to the Urology Department for a mass in the left kidney. A total nephrectomy with trombectomy of the left renal vein was performed, and the surgical specimen was examined in the Pathology Department of the Mureş County Hospital. **Results:** On gross examination, the tumor was white-grayish, necrotic and hemorrhagic. Microscopically, it had a heterogenous construct, with nests and papillary structures showing large polygonal cells with clear/granular eosinophilic cytoplasm, vesicular nuclei and prominent nucleoli. Immunohistochemically, tumor cells expressed CD10, AMACR, PAX 8, HMB45 and TFE3, and for CK7, CAIX, and Melan A, the expression was negative. The TFE3 FISH analysis performed, has confirmed the immunohistochemical profile for a Xp11.2 translocation RCC. Tumor was extended beyond the kidney, in the perirenal adipose tissue, with tumoral emboli in the renal vein, classified as pT3a pathological stage. **Conclusions:** This rare and uncommon variant of RCC is extremely threatening and violent when it manifests in adults, as in this particular case, with an advanced stage at presentation. An accurate diagnosis of Xp11.2 translocation RCC requires integration of clinical, morphological, immunohistochemical and molecular information.

Keywords: renal cell carcinoma, Xp11.2 translocation, MiTF, TFE3

PERIPARTUM EXPOSURE TO ANTIBIOTICS - A CROSS SECTIONAL STUDY

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Background: Antibiotic resistance is a global public health problem which is rising to dangerously high levels in all parts of the world. Even though antibiotic resistance occurs naturally, the irrational prescription by medical professionals and misuse by some individuals are among the most common causes. As some antibiotics prescribed during pregnancy and peripartum have been associated with different types of disorders in infants, caregiver's behavioural changes must be taken into consideration. **Objective:** Evaluation of the exposure of newborns to antibiotics before birth and in the first week of life as a possible preamble to the subsequent development of antibiotic linked diseases. **Material and methods:** We conducted a cross sectional study over a period of 20 days from February 1st to the 20th 2020 in which we analyzed all the preterm and full term newborns who were registered in the Neonatology Clinic I in Târgu-Mureş. The sample consists of 110 newborns and we evaluated whether or not they were exposed to antibiotics before birth or in the first week of life. **Results:** Among the subjects included in the study, peripartum antibiotic exposure of apparently healthy newborns occurred in all 33

(100%) caesarian section deliveries due to the prophylactic administration of second generation cephalosporins to the mother. Out of the newborns delivered through a vaginal birth, 20 (27,4%) full term and 2 (50%) pre term newborns were given macrolides in the first week of life for curative purposes in different types of infections and therefore, highlighting a much higher percentage within preterm and caesarian section deliveries. **Conclusions:** It is proven that antibiotic related diseases are associated with the misuse and overuse starting from a very young age and therefore, the prescription of antibiotics has to be developed by the health systems in a comprehensive approach.

Keywords: newborn, antibiotic related disease, antibiotic resistance

THE IMPLICATION OF THE WEATHER ON STUDENT'S MOTIVATION ON FINAL EXAMS

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Background: Weather occurs primarily due to air pressure, temperature and moisture, differences between one place to another. These differences can occur due to the sun angle, which varies by latitude from the tropics . Weather refers to day-to-day temperature and precipitation activity, whereas climate is the term for the averaging of atmospheric conditions over longer periods of time. **Objective:** This research explores the effects that the weather has on students that are studying for the final exams. Temperature, rainfall, and wind speed, all are factors that help or not the student to focus. **Material and methods:** Our analysis of 68 peoples answers allowed us to figure out that people were more likely study in spring or winter. We conduct investigations into the corelation between meteorological conditions and the ability to concentrate. **Results:** We asked several students, men and women, different questions about what season they prefer to study and have the ability to memorize better. At the study participated 30,9% men and 69,1%women, with ages between 19 and 25. The two dominant seasons chosen by the students were winter(30,9%) and spring(45,6%). 50% of students prefer to learn in the morning and the rest in other parts of the day. The seasons chosen by the students are some that encourage staying inside due to the rainy days, or weather changes. In those seasons the landscape is devoid of life. Also, most of the students affirmed that even a warmer winter influences in a good way the ability to study. **Conclusions:** It has been showed a correlation between temperature changes and the results of the students in finals exams. The questions asked were intended to show that students are more motivated in seasons such as winter and spring, where weather urges to stay inside.

Keywords: Weather, Temperature, Climate, Motivation

SLEEP DISORDERS AND THEIR MANAGEMENT AMONG UNIVERSITY STUDENTS

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Background: Sleep disorders are a current issue concerning psychiatric health, influencing intelligence performance levels and attention, especially among university students. They include either a lack of or an abundance of sleep, sleep quality and various phenomena occurring during the resting period. **Objective:** The aim of the study is to assess the link between sleep disorders of university students and their psychiatric health. It also points out their approach to professional help and treatment or a lack thereof. **Material and methods:** For the purpose of analyzing the sleep disorders present among the Romanian student population, students were asked to fill out 25 questions about their level of stress and affective symptoms, but also about the characteristics of their sleep. They were also questioned about the professional help they reach out to and the applied treatment when dealing with insomnia. **Results:** A number of 1064 students responded claiming to present problems sleeping. 67% associate it with high levels of stress and believe they could be caused by education/career(36%). Concerning psychiatric health, 38% claim to present symptoms of depression, 57% symptoms of anxiety and 76% percent obsessive-compulsive personality traits. Out of all study participants, 68% do not reach out for help and 19% self medicate. 53% of them claim to not use any sleep-inducing substances, and out of those who do, 45% use plant-based components and 21% melatonin, and only 9% benzodiazepines. Out of all the study participants, 70% responded that they rarely or never use any sleep-inducing substances. **Conclusions:** The study indicates a link between stress, affective symptoms and sleep disorders presented by students. It also points out the

deficiencies concerning the management of sleep disorders and the importance of educating students about the repercussions caused by the lack of sleep and its improper treatment.

Keywords: sleep disorders, insomnia, university students

PERSONOLOGICAL AND SOCIAL FACTORS IN THE DETERMINISM OF BURNOUT SYNDROME IN MEDICAL STUDENTS

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Background: From the beginning of University, medical students are experiencing a multitude of stressful psychosocial situations, which if persistent can lead to burnout syndrome. Burn-out syndrome is characterized by the following 3 dimensions: emotional exhaustion, depersonalization and lack of academical progress. The personological factors are represented by: neuroticism, extraversion, agreeableness, conscientiousness and openness to experience. The social factors are the following: marital status, the relationship with the partner and the relationship with colleagues. **Objective:** The purpose of this paper is to highlight the importance of personological and social factors in the determinism of burnout syndrome in medical students. **Material and methods:** Data analysis from the scientific literature on personality traits and social characteristics to determinate the presence of which factors have the most influence on the development of burnout syndrome. **Results:** The first personological factor, which is highly associated with the burnout syndrome, is neuroticism. Medical students with elevated neuroticism levels have a tendency to feel anxious, stressed or depressed which increases their emotional exhausting. Medical students with a strong sense of conscientiousness are also highly associated with the syndrome. The remaining factors: agreeableness, extraversion and openness to experience are associated with a low presence of burnout. The students with a marital status, a good relationship with their partner and colleagues have a lower level of burnout compared to the single ones, with a bad relationship with their colleagues, which experience a greater level. **Conclusions:** Both personological and social factors are associated with the development of burnout syndrome in medical students.

Keywords: burnout, medical students, personological factors

CLINICAL PROGRESSIVE PARTICULARITIES OF SECONDARY ALCOHOLISM

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Background: Alcoholism represents a current public health problem due to increased prevalence and its impact on the somatic condition and role functioning. Secondary alcoholism always occurs in the context of another mental, somatic disorder or disharmonious personality. **Objective:** Highlighting the relationships between alcoholism and another axis I mental disorders and/or the presence of disharmonic personality traits to understand the phenomenon and the explicit management of secondary alcoholism. **Material and methods:** We included in the study patients with mental disorders related to ethanol use, in which alcoholism is a consequence of another mental disorder, such as anxiety or depressive disorders or is associated with the presence of pathological personality traits. We evaluated the demographic data, the role functioning and analyzed the personality of patients from the categorical point of view using the SCID II questionnaire. Patients with problems related to ethanol use lasting more than 10 years were excluded from the study considering possible characteristic changes secondary to long-term ethanol use. We studied the associations between demographic data, role functioning quality, the comorbidities of axis I, the personality traits and the clinical and progressive particularities of secondary alcoholism. **Results:** For most of the subjects included in the study, alcohol consumption is a way of managing anxiety and sadness. The patients with anxious personality traits are the most, followed by those with impulsive-unstable features. The family habit of ethanol production and consumption is present in most of the studied subjects. Concerns and suicidal behavior are increased in patients with ethanol consumption who suffer from depression or have impulsive and unstable personality traits. **Conclusions:** The study confirms the anxiolytic and euphorogenic role of alcohol used in the context of psychoneuroses, with serious implications for the somatic condition and role functioning. Also, for those with disharmonious personality traits, alcoholism aggravates behavioral disorders and decreases the adaptive capacity of the subjects.

Keywords: secondary alcoholism, alcoholism, mental disorders, public health

MATERNO-FETAL EVOLUTION AND COMPLICATIONS IN INDUCED LABOR WITH PHARMACOLOGICAL METHODS

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Background: Induction of labour is a common procedure in obstetrics worldwide. The mean duration of a singleton pregnancy is 40 weeks of amenorrhea, which is calculated from the first day of the last normal menstrual period. Labour means the process between the first uterine contractions and the birth of the fetus and placenta. **Objective:** The primary purpose of this study is to evaluate the efficiency of the induction of labour with pharmacological methods and to evaluate the maternal and newborn outcomes. **Material and methods:** We conducted a retrospective study included 82 pregnant women admitted in the Obstetrics and Gynecology Clinic No. 1 of Targu-Mures between 1st January 2019 and 31st of December 2019 with a singleton fetus in cephalic presentation, between 36-42 weeks of gestation. We collected data from the archive of the Clinic and all data were analysed and interpreted statistical. **Results:** It was a total of 1783 births (70% vaginal delivery and 30% cesarean delivery) in the Clinic, out of which 87% were mature newborns and 13% were premature. We have found that 5% had induced labour, with 78% vaginal delivery vs. 22% cesarean section. The indications of induction of labour were: premature rupture of membranes (40%), post-term pregnancy (38%), hypertension(5%), cephalopelvic disproportion (9%), failed labour (4%), stillbirth (1%). Out of 64 vaginal births, a percent of 98,5% used Oxytocin and 1,5% used Misodel and 100% Oxytocin for the cesarean delivery. Among the 82 mature newborns, the outcomes were divided in nuchal cord (10%), fetal hypotrophy (4%), fetal distress (4%), true umbilical cord knot (3%) and cheiloschisis (1%). **Conclusions:** Induction labour with pharmacological methods has maternal and fetal indications. The rate of induced labour was very good, although the oxytocin is a drug used in the second stage of the labour. The postpartum period was good, the rate of cesarean birth was reduced.

Keywords: induction of labor, term, cephalic, singleton

PREDICTION OF RESPIRATORY DISTRESS SYNDROME (RDS) AMONG PRETERM INFANTS USING THE LACTATE VALUES

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Background: RDS is one of the most common respiratory disorder of the newborns being responsible for the necessity of neonatal intensive care and causing the majority of premature death. Recent studies have shown the clinical importance of the lactate concentration in the assessment of the prognosis of newborns, which is more accurate compared to the other parameters analyzed perinatally. **Objective:** The purpose of this study is to highlight the correlation between serum lactate level from cord blood and and the development of RDS among newborns with gestational age less than 37 weeks. **Material and methods:** We have conducted a retrospective study between January-December 2019 on a number of 94 preterm infants hospitalized within the Neonatology section of the SCJU Targu-Mures. The inclusion criteria were the gestational age below 37 weeks, respectively the birth weight less than 1500g, and the analyzed parameters are: birth diagnosis, Apgar score, secondary diagnoses and serum lactate value. **Results:** Of the total number of 94 patients, 79.78% presented increased lactate values, of which 54.67% did not suffer from RDS. According to the results, 52.12% of the premature suffered from RDS after birth, high lactate values reaching 69.38% of them. Regarding the Apgar score, a value of less than 8 was identified in 70.46% of the premature, RDS being found in proportion of 67.14%. **Conclusions:** Patients suffering from RDS have in most cases an increased level of lactate, but not all patients with high lactate will develop RDS. Regarding the Apgar Score, more than half of the newborns who obtained a value less than 8 suffered from RDS. Corelating all the results it can be stated that the occurrence of RDS cannot be predicted by using a single parameter. More paraclinical data must be associated as a whole for the diagnosis of RDS, this representing the individuality and uniqueness of each case.

Keywords: Respiratory Distress Syndrome, Lactate, Preterm

ACUTE MYOCARDIAL INFARCTION OF A YOUNG PATIENT WITH ADRENOCORTICAL ADENOMA

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Background: Based on observational studies results patients with endogenous hypercortisolism present significantly higher coronary atherosclerotic plaque burden, which involves increased rates of cardiovascular morbidity and mortality. **Objective:** We present the case of an infero-lateral Killip class I ST-elevation myocardial infarction (STEMI) diagnosed in a young female patient with history of adrenocortical adenoma and secondary high-risk grade 2 hypertension. **Material and methods:** A 43-year-old patient with diagnosed adrenocortical adenoma and secondary hypertension under treatment presents constrictive anterior chest pain started during night, approximately 6 hours before emergency department admission, radiating in the left arm, diaphoresis and dyspnea. EKG reveals ST elevation in infero-lateral leads, with depressed ST segment in DI, aVL. Echocardiography showed a 45% left ventricular ejection fraction with marked hypokinesia of inferior and lateral left ventricular wall. Positive cardiac high-sensitive cardiac troponin levels were found (hs-cTnI 2500 ng/l). After admission in Cardiac Department with the diagnosis of infero-lateral STEMI Killip I class, emergency coronary angiography was performed which revealed an 85% critical stenosis in the vertical segment of the right coronary artery (RCA). **Results:** Successful PCI with DES implantation was performed on the level of culprit lesion with favorable clinical patient course. **Conclusions:** The particularity of our case divert from the involvement of endogenous glucocorticoid excess as risk factor in the development and progression of atherosclerotic disease leading to acute myocardial infarction in a young female patient.

Keywords: acute myocardial infarction, adrenocortical adenoma, cardiovascular risk, hypercortisolism

SIGHTING 2,4-DINITROPHENOL: A RENOUNCED DRUG USED FOR WEIGHT LOSS WITH CLINICALLY PROVED NOXIOUS EFFECTS

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Background: 2,4-dinitrophenol (2,4-DNPh) is a chemical substance which uncouples the oxidative phosphorylation of the electron transport chain. Thence individuals, who aim to lose weight, although not willing to perform any intense muscular efforts, generally use it. **Objective:** The present study aims to evaluate the exposure risks and noxious effects of 2,4-DNPh. **Material and methods:** Data investigation and analysis about the past and current experts'opinion on 2,4-DNPh was based on an extensive and systematic literature review using conventional scientific database websites, such as PubMed and Medline. **Results:** Despite the fact that its toxic side effects have raised attention for nearly a century and although the legal status of the substance has shifted from over the counter use to potentially toxic, it is still used, generally by sportsmen, to achieve the desired body weight in a definite time span. The uncoupling of the oxidative phosphorylation of the electron transport chain is generally related to weight loss, mainly due to a reduced ATP synthesis by the oxidative processes that occur on the internal membrane of the mitochondria. Although this results in an increased rate of glycolysis, but in parallel reduces the aerobic metabolism, resulting in increased lactic acid levels and accumulation of inorganic phosphate. The adverse effects include hypertension, leading to an increased heart rate, blood pressure, tachypnoea, convulsions and eventually death. **Conclusions:** Although 2,4-DNPh is easily accessible via internet acquisition and weight loss is significant while using it, the adverse effects and risks associated with its use should be equally considered.

Keywords: 2,4-dinitrophenol, weight loss, toxicity

ASPECTS OF TRAFFIC-RELATED DEATHS - A RETROSPECTIVE STUDY OF THE CASES REPORTED IN 2017

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Background: Traffic accidents are a public health issue due to the large number of victims involved and although the fatal injuries are less frequent, there is an ascending trendline in the number of non-fatal accidents. Due to the variety of traumatic agents involved, the injuries produced, especially the fatal ones, are highly complex and the polytrauma cases outnumber the single-injury ones. **Objective:** This study aims to present the patterns of the fatal accidents' injuries and of the victims involved. **Material and methods:** We present a retrospective study, based on the traffic related death files from 2017, from the Legal Medicine Institute in Targu Mures. The following criteria were taken in consideration: demographic information, type of vehicle, category of road user, types of injuries reported, blood alcohol concentration, type and cause of death. **Results:** There were 69 traffic related deaths out of 1681 accidents reported by the police departments assigned to the institute □ 14 females and 55 males, mostly living in rural areas (44) and mostly being in their 50s and 70s (17 cases each). The blood alcohol concentration was determined in 48 cases, 14 of them were positive. There were 30 pedestrians, 21 drivers, 9 passengers involved and the rest of them were using other means of transport. 41 of the victims died instantaneously or within 24 hours of hospitalization, the mean period of survival being 28 days. There were 54 polytrauma cases, out of which 33 associated with cranio-cerebral and thoracic injuries, 11 with cranio-cerebral injuries and 10 with thoracic injuries. The most common causes were: traumatic shock (15), central cardio-respiratory insufficiency (13), hemorrhagic and traumatic shock (11) and primary-lethal lesions (9). **Conclusions:** Based on these results and medical literature, the conclusions drawn are that the traffic-related deaths are of high complexity, involving numerous factors and mechanisms and a public health issue.

Keywords: traffic accidents, injuries, autopsy

A CASE OF MYCOBACTERIAL CHELONAE LUNG DISEASE IN A PATIENT WITH ESOPHAGOPLASTY

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Background: Pulmonary infections due to nontuberculous mycobacteria (NTM) are in an increasing prevalence worldwide. Among NTMs, one important subtype is the rapidly growing nontuberculous mycobacteria (RGM), which includes *Mycobacterium chelonae*. It is important to identify this type of infections, as drug treatment can vary significantly to *Mycobacterium tuberculosis* (MTB). **Objective:** : We present you the case of a 49-years old male who shows up at the hospital with intense and prolonged cough, in whom the chest CT scan revealed a tumor-like mass of 46/61/65 mm in upper right pulmonary lobe. The patient had a 22 pack-years smoking history and a esophagoplasty from an accidental ingestion of sodium hydroxyde 20 years ago. **Material and methods:** He was sent to thoracic surgery, but the patient refused both surgical resection or bronchoscopy. Instead, he was referred to pneumology for further investigations and was put on a 21-day course of antibiotic treatment with meropenem. Consequently, a clinical and a radiological improvement of the pulmonary mass was noticed. During hospitalization, multiple Acid-Fast Bacillus (AFB) smears tested negative. One week after discharge, a culture with the suspicion of a NTM grew positive. **Results:** Further bacteriological tests were performed which revealed the presence of a *M. chelonae*. The patient was switched from the tuberculosis treatment to a tritherapy with clarithromycin, amikacin and moxifloxacin. Treatment for a minimum of 12 months of negative sputum is recommended. **Conclusions:** *M. chelonae* is a member of *M. abscessus* complex (MABC), which is the second most common cause of NTM lung disease after *M. avium* complex in many countries. MABC is resistant in vitro to many antibiotics and it is difficult to treat. The particularity of the case comes from the low prevalence of *M. chelonae* in imunocompetent patients.

Keywords: mycobacterium chelonae, rapidly growing nontuberculous bacteria, nontuberculous bacteria, prolonged treatment

PLEURAL EMPYEMA IN A COMPLICATED PNEUMONIA IN A PATIENT WITH MULTIPLE COMORBIDITIES

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Background: Pleural empyema can appear as a pneumonia complication due to risk factors (obesity, diabetes, cirrhosis, immunodepression, tuberculosis-TB, tumors, periodontitis, gastro-esophageal reflux-GERD). Long time antibiotic treatment could bring the cure, but often pleural drainage is necessary for complete evacuation of an encysted empyema. Sequels of pleural empyema include pleural fibrotic thickening. **Objective:** Emphasis the difficulties of the diagnosis and treatment in pleural empyema in a patient with multiple comorbidities. **Material and methods:** A 51-years-old male was hospitalized in the Pneumology Clinic for purulent cough, dyspnea, fever and weight loss (3kg/10 days). Medical history mentioned hypertension, ischemic heart disease, left ventricular failure, GERD. We found increased BMI (36 kg/m²), dental foci, hypertension and "de novo" diabetes. The chest x-ray revealed an intense opacity situated on the lateral thoracic wall. Thoracic ultrasound identified an encysted pleural collection. The pleural puncture evacuated purulent liquid (negative for bacteria and Koch bacillus in microscopy and culture). The bronchoscopy pointed out chronic suppurated bronchitis. Thoracic CT described left pneumonia, left pleurisy with multiple encystations, minimal pericarditis and hiatal herniation. Differential diagnosis was made with TB by clinical aspect, bacteriology and by the good evolution under non-specific antibiotics. Lung tumor was excluded by bronchoscopy and CT. A complex treatment was initiated with antibiotics, antifungal, anti-inflammatory, mucolytic, corticosteroids, cardiotoxic, diuretic and gastroprotective drugs. After one month the patient showed a significant improvement. Thoracic surgery consult didn't indicate the drainage. We continued the medical treatment. **Results:** After 2 months the patient's evolution was favorable under systemic multiple antibiotics and fluid evacuation. Thoracic CT described pleural sequelae fibrosis. **Conclusions:** The complex treatment with large-spectrum antibiotics and several thoracentesis drive to empyema cure with minimal fibrotic sequelae. Pneumonia complication with empyema was determined in our patient by the association of multiple uncontrolled comorbidities (obesity, periodontitis, GERD, diabetes, cardiac failure).

Keywords: pleural empyema, risk factors, antibiotics, fibrotic sequelae

PHYSIOLOGICAL AND PATHOLOGICAL ECG VARIATIONS IN ATHLETES

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Background: Sudden cardiac death (SCD) is the leading cause of death in athletes, and the majority of these deaths are associated with undiagnosed cardiovascular disease. Early detection of cardiovascular pathology by screening for high-risk individuals, offers the possibilities of lifestyle modification or therapeutic intervention. ECG changes in athletes occur as a result of electrical and structural adaptations resulting from continuous exercise. In order to differentiate physiology from pathology the correct interpretation is essential. The recently published (2017) international recommendations for ECG interpretation in athletes, has led to a significant reduction in false positive results. **Objective:** The present study aims the identification and differentiation of the physiological ECG variations from the pathological ones in athletes. **Material and methods:** We performed a prospective observational study involving 50 athletes, 50% women 50% men, between 18 and 47 years of age, who practice sports between 3 and 40 hours per week, for more than 2 years. A physical examination was made and a 12-lead ECG has been recorded in order to recognize any variations. The ECG device used for this study is a BTL-08 SD6 6-channel electrocardiograph and a Philips Epic7 ultrasound machine. Our research is still ongoing, we aim to achieve the total number of 100 subjects until July 2020. **Results:** The majority (40%) of our athletes were between 30 and 40 years of age. 3,5% of them is diagnosed with a cardiovascular disease (left ventricle hypertrophy), while 53,5% has a positive familiar anamnesis. Bradycardia was present in 46,4%, left ventricular hypertrophy in 3,5%, early repolarization in 14,2% and T inversion in V1-V2 in female athletes in 85,7%. All these variations are physiological. **Conclusions:** Whether performed for screening or diagnostic purposes, it is important for cardiologists to be guided by ECG interpretation standards that improve disease detection and reduce false-positive results.

Keywords: cardiology, athletes, ECG, sports cardiology

THE USE OF RUTHENIUM COMPLEXES WITH POTENTIAL VASODILATING ACTION

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Background: Arterial hypertension is a multifactorial comorbidity responsible for causing lesions in several organs. Although there are several treatments for blood pressure, there is still no treatment that can be considered ideal, requiring a constant search for new alternatives. Ruthenium complexes are potential NO donors, being able to promote relaxation of the vascular musculature. Due to the usage limitations of other vasodilators, it resulted a greater development of metallo-complexes that were more stable offering a greater bioavailability of NO, also promoting a better antihypertensive-effect. **Objective:** The evaluation of the ruthenium complex FOR811A efficacy and potential like a hypotensive agent. The assessment of the complex effects on normotensive rats's cardiac system. **Material and methods:** The mouses are anesthetized with Cetamine® and Xilazine® that were administrated by intraperitoneal route. It is positioned on a heated surgical table keeping the temperature at 37 °C, then a catheter is introduced in the left ventricle to measure the intraventricular pressure and volume. Moreover, another catheter is inserted in the inferior Cava Vein, so that the drugs can be injected. The catheters are connected to the PowerLab system to process the signals and results. **Results:** In the preliminary studies with FOR811A, a metallo-complex, showed a potent vasodilator action, even with usage of some blockers. FOR811A preparations pretreated with a blocker, showed only a slight reduction in concentration-dependent power in those of the compound that contained NO, with these results is possible to affirm that FOR811A has a strong involvement with NO donors. **Conclusions:** FOR811A - have actions on the NO-sGC-cGMP pathways and also on potassium channels, evidenced by subsequent in-vitro and in-silico tests. This research, being a pioneer in metallic-complexes, is important in cardiovascular pharmacology progress. Furthermore, this study attempts to elucidate the mechanism of these compounds until the possible discovery of new drugs capable of acting in the NO pathway.

Keywords: Ruthenium-complexes,, hypotensive agent,, catheter

AN UNEXPECTED DIAGNOSTIC: ABDOMINAL EPILEPSY IN 6 YEARS OLD CHILD

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Background: A colon spasm is a spontaneous contraction of the muscles in your colon. Abdominal colic is a clinical syndrome with intermittent abdominal pain characterized by sudden onset and cessation. The gastrointestinal system communicates with the brain by way of vagus nerve fibers and the gut-brain axis. **Objective:** The objective was to find out which is the cause of abdominal pain associated with crying and lack of communication with the medical staff in a 6 years old boy because the typical medical tests for such a condition did not show, besides a functional disease, a palpable cause. **Material and methods:** A 6-year-old boy was admitted to the hospital accusing abdominal pain, he was agitated during the medical examinations, but with intestinal transit affirmatively present. Diversified investigations were made trying to find the main cause of abdominal pain such as: ecography, radiography, and even neurological exam, because the child behaved differently in the presence of doctors compared to the way he was behaving in the presence of his mother and he was also playing on the phone all day, but when the doctor gave him coloring books or when she was telling him fairytales, his symptoms suddenly stopped. **Results:** Regarding all the investigations made, the patient is diagnosed with abdominal colic, behavioral issues, changes in electroencephalographic route, colon spasm and flatulence. **Conclusions:** It is important for physicians to have in mind when making differential diagnosis for causes of abdominal pain that this manifestation is commonly seen in abdominal epilepsy, even though it is a rare disease. And as another conclusion, parents nowadays should pay more attention to their children and involve them in creative activities and less technology, in order to prevent such conditions as the one named above.

Keywords: overexposure to technology, colon spasm, abdominal colics

ADVANCED POTT'S DISEASE IN A WOMEN IN POSTPARTUM PERIOD

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Background: Pott's disease had an important decline due to prevention measures and antibiotic treatment. TB in the postpartum period is a delicate condition and requires antibiotic treatment of the mother, evaluation of the new born (tuberculinic skin-test, chest x-ray) and chemoprophylaxis. **Objective:** To emphasize the difficulties of diagnosis and treatment of TB in postpartum period. **Material and methods:** A 29-years-old women (smoker 10 packs-year, in postpartum status) was admitted in the Pulmonology Clinic with cough, back pain and weight loss (9kg/10 months - during pregnancy). We found BMI=15.9kg/m², pallor and pain at spine percussion. The chest x-ray shows a lung infiltrate. MRI revealed multiple osteolytic lesions at L3-S1, fluid collections in the paravertebral space sliding along the psoas. We sent the patient in surgery for collection evacuation and biopsy. The orthopedic/neurosurgery consult recommended for the moment only antibiotics and orthosis (no signs of nerve compression). Histopathology: specific inflammatory granuloma with caseating necrosis, fibrosis and calcifications. Differential diagnosis was underlined by histological confirmation and suggestive MRI. We started antibiotic treatment with Isoniazid, Rifampin, Pyrazinamide and Ethambutol and orthosis with excellent evolution. The baby was controlled and he was in good health condition. We started chemoprophylaxis with Isoniazid. The case finding in the family/entourage didn't discover the primary source or other ill contacts. As we didn't find a recent contact with contagious TB, we consider the Pott's disease a TB reactivation in the presence of immunodepressant factors: pregnancy, smoking, poor economical-social conditions and hematologic dissemination. **Results:** After 3 month of treatment the patient has a good evolution. The treatment will be prolonged to 8 months. **Conclusions:** Pott's disease can have long time a modest clinical presentation. In our case it was masked by the pregnancy. Diagnosis and monitoring Pott's disease in postpartum period involve complex measures and a multidisciplinary approach.

Keywords: Pott's disease, postpartum TB, prophylaxis in new born

CLINICAL-EVOLUTIVE PARTICULARITIES OF DEPRESSION IN YOUNG WOMEN

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Background: Depression is one of the most common psychiatric disorders with an ascending trend globally. Recent studies have focused especially on depression in young women, as it has been proven a higher association of risk factors, such as genetic vulnerability, hormonal changes. Comparing with men, women are also more predisposed to develop depression in response to environmental stress factors. **Objective:** The aim of this study was to highlight clinical and evolutive aspects in terms of suicidality, substance abuse and the level of function in social and professional roles. **Material and methods:** Our study included a sample of 30 patients, aged between 18 and 35, admitted at Psychiatric Clinic No.2 Tîrgu Mureş, during January-February 2020. We applied an anonymous questionnaire, containing 14 questions regarding biographical aspects, together with questions about substance abuse, depressed mood and suicidal thoughts. The DSM 5-Level 1 Cross-Cutting questionnaire was applied in addition to the biographical one. **Results:** Our results showed a statistically significant association of suicidal thoughts in a quarter of patients ($p=0,03$, $r=0.7$). Regarding substance abuse, the results demonstrated a trend ($p=0,06$, $r=0.4$) of moderate association with caffeine and tobacco abuse. **Conclusions:** The present study is in accordance with the current state of knowledge, our result emphasizing an increased co-occurrence of minor substance abuse in this particular sample of young women. The observations resulted from this study suggest that depressive syndrome in young women represents actually a multifaceted context involving multiple factors whose dynamics can explain the noticeable dysfunctionality in socio-professional roles.

Keywords: depression, young women, vulnerability

FAVORABLE PROGNOSIS IN A SEVERE CASE OF EPILEPTIC ENCEPHALOPATHY ASSOCIATED WITH NEUROFIBROMATOSIS TYPE 1

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Background: Lennox-Gastaut Syndrome (LGS) is a devastating epileptic encephalopathy characterized by the presence of polymorphic seizures, resistant to antiepileptic drugs (AED). The clinical picture is accompanied by severe neuro-psycho-motor retardation. Neurofibromatosis type 1 (NF1) is a genetic disorder with suggestive clinical picture and uncertain prognosis. **Objective:** The main purpose is to manage such a severe case by streamlining the treatment. **Material and methods:** We are monitoring an eleven-years-old boy case presented at the pediatric neurology department at the age of 2.6 with multiple seizures with polymorphic aspect: generalized tonic-clonic, tonic-clonic seizures (1-2/day), myoclonic seizures (10-20/day), typical and atypical absences (30-40/day), atonic and amyotonic seizures (30/day), speech retardation and mental disorder. At the same age 30 café-au-lait spots appeared on the body (the only case in the family). In evolution epileptic seizures intensified over the next two years, presenting numerous prolonged epileptic statuses with multiple antiepileptic treatment combinations. Furthermore agitation of psychotic intensity, aggressiveness, high attention deficit were described. The number of café-au-lait spots has increased over the next 4 years reaching 170 spots, approximately 20 with diameter over 1 cm. **Results:** CT and IRM were without modifications. The EEG presented modifications characteristic for LGS. The psychological testing showed mental retardation. **Conclusions:** Initially the epilepsy was treatment refractory, but after four years on 3 AED we were able to control it (since 7.5 years-old he is seizure free; the number of spots was unchanged; the behavior disorders with acting out pattern decreased). In the present he is a schooled child with mild mental retardation and attention-deficit/hyperactivity disorder. The particularity of this case is that the evolution was favorable, patient responding to our treatment which in a case with LGS and NF1 is exceptionally rare.

Keywords: NF1, LGS, SEIZURE

A PARTICULAR CASE OF OCULAR MYASTHENIA GRAVIS IN A PEDIATRIC PATIENT WITH ARTHROGRYPOSIS MULTIPLEX CONGENITA

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Background: Arthrogyrosis is a congenital disease characterized by non-progressive contracture in two or more areas of the body, completely or partially restricting the flexibility of the joints. Ocular myasthenia gravis is an autoimmune condition, clinically manifested through weakness of the eyelids muscles (levator palpebrae superioris). **Objective:** Our main focus was to establish a prompt and accurate diagnosis in order to diminish as much as possible the disabilities on long term. **Material and methods:** We present the case evolution of a 2.10-years-old child without a significant ante- and perinatal history, but with a delayed psychomotor development rate for her age. Since 2-months-old she has been diagnosed with arthrogyrosis multiplex congenita in association with septal atrial defect, clubfoot and bilateral palpebral ptosis, accentuated in the evening and in periods of intercurrent respiratory infections, which raises the suspicion for myasthenia gravis-ocular form. **Results:** The prompt diagnosis was followed by a quick assessment of the treatment possibilities, that was complex starting with immobilization in orthopedic casts and after, orthoses, for almost 1 year. Next was intensive physio-kineto-therapy and neuroborant drugs. At 1.7-years-old ocular myasthenia gravis was confirmed and Neostigmine was added to the treatment schedule. At that age, the psychomotor level was similar to an 8-months-old. Nowadays, the patient can make 3-4 steps by herself, motor skills equivalent to those of a 1-1.2 years-old, while psychologically corresponds with a 2 years-old individual. **Conclusions:** This challenges of this case reside in the association of these infrequent diseases, therefore the treatment implies a multi-disciplinary approach: occupational therapy, psychosocial assistance and, eventually, orthopedic surgery. Although there is no absolute cure, increasing the life quality offering a normal social inclusion represents the priority of our medical care.

Keywords: Ocular myasthenia gravis, Psychomotor retardation, Arthrogyrosis

TWO CARCINOMAS WITH DIFFERENT PATHOLOGICAL FEATURES WITHIN THE SAME BREAST

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Background: A HER2-positive breast cancer tests positive for the "Human epidermal growth factor receptor 2" and promotes growth of the cancerous cells. 1 in about every 5 breast cancers has a mutation that will make an excess of the HER2 protein. An ER-positive and PR-positive breast cancer has estrogen and progesterone receptors and the cancerous cells depend on these hormones to grow. **Objective:** To present an unusual case with two different carcinomas with different pathological features, which are part of the same breast and the complex therapeutic approach for its resolution. **Material and methods:** We present the case of a 48-year-old patient with cT4b N2 M0 HER2=3+ ER=0 PR=0 Ki67=25% breast cancer in the right breast, diagnosed in June 2016. She is treated with neoadjuvant chemotherapy. Radical Mastectomy is performed and reveals a second tumor, a stellate node HER- ER=95% and PR=60%. Due to the presence of the two tumors with different pathological substrate, anti-HER (Herceptin) and RH+ (Tamoxifen and Zoladex) treatments are initiated. In April 2017, a local recurrence of the breast cancer (HER2=3+ RH-) is detected, in the form of erythematous micronodules located at postoperative scar level. Herceptin treatment is discontinued and Zoladex, adjuvant radiotherapy and hyperthermia sessions are initiated. November 2018 brings bilateralization. A left breast carcinoma cT2 N1 M0 HER2=3+ and RH- is detected for which treatment with Trastuzumab Emtamsie is initiated, followed by left radical Mastectomy and left axillary lymphadenectomy which reveals a positive node. **Results:** April 2019 presents the scenario of cutaneous nodules in complete remission without any edema and treatment with Kadcyła is continued. **Conclusions:** Breast cancer should not be seen as a singular illness but rather a multifaceted one which can contain multiple biological subtypes, presenting a large variation of pathological and clinical features with a diverse therapeutic and prognostic implication.

Keywords: Breast Cancer, PR-positive, HER2-positive, ER-positive

TYPE 2 DIABETES AND QUALITY OF LIFE: A STUDY ASSESSING PATIENTS' PERCEPTIONS ON SELF LIMITATIONS DUE TO DISEASE

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Background: Type 2 Diabetes Mellitus is a global health issue of our contemporary era, and its incidence is increasingly growing. In recent decades numerous studies on HrQoL proved the presence of limitations in physical, emotional and social functioning of diabetic patients. **Objective:** The aims of our study were to assess the QoL in diabetic patients and to highlight the importance of improving disease management in order to reduce progression and incidence of complications. **Material and methods:** Multiple aspects of QoL in diabetic patients were analyzed based on a questionnaire which comprises information about the impact of diabetes on social life, relationship with family, self-care, career, goals. Also social anxiety, coping with stressful situations, anxiety linked to disease, self-assessment of quality of life after being diagnosed with diabetes, clinical and socio-demographical data were evaluated. The level of statistical significance was set-up at $p < 0.05$. **Results:** The average age of the study population was 48.56 ± 10.66 years and 53.77% of patients were female. In 31.34% of the patients one or more complications (neuropathy, nephropathy, retinopathy, chronic coronary artery disease, arteriopathy of lower limbs) were present and 46.3% of diabetic patients had hypertension. The presence of complications significantly worsened overall QoL ($p=0.0348$), as well as socioeconomic status of patients: there were significant correlations between the presence of complications and decreased chances of employment ($p=0.03$), social anxiety ($p=0.0085$) and worsened social relationship ($p=0.01$). Also anxiety due to disease ($p=0.0248$) and depression ($p=0.028$) were significantly associated with complications. **Conclusions:** Complications have a negative impact on QoL in diabetic patients. Thus, maintaining proper blood glucose levels and reducing modifiable risk factors are required to prevent complications and comorbidities and, subsequently, improve QoL in diabetic patients.

Keywords: type 2 diabetes mellitus, QoL, HrQoL

MULTIPLE LONG-TERM COMPLICATIONS OF CIRRHOSIS, DUODENOPANCREATECTOMY AND SUBTOTAL GASTRECTOMY – CASE REPORT

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Background: Cirrhosis is the most serious form of alcoholic liver disease harboring an increased mortality in patients presenting co-morbidities. Around 10-15% of people with alcoholism develop cirrhosis and pancreatitis. Esophageal candidiasis (EC) is the most common type of infectious esophagitis, mostly occurring in immunocompromised states with non-specific symptoms. Risk factors for EC in immunocompetent patients are: gastric surgery, liver cirrhosis and medication. **Objective:** The present case-report aims to highlight possible complications of gastric and pancreatic surgery, as well as cirrhosis in a patient with alcohol related diseases. **Material and methods:** A 58-year old diabetic, hypertensive patient, with a medical history of duodenopancreatectomy and subtotal gastrectomy for alcoholic pancreatitis 16 years ago and 2 episodes of upper digestive bleeding was admitted to the Emergency Department reporting two episodes of loss of consciousness and fatigue. Laboratory findings showed an anemic syndrome (Hgb: 7.8 g/dl) and decompensated diabetes. **Results:** The abdominal ultrasound revealed: liver with isoechogenic structure, irregular capsular contour, considerable pneumobilia, minimal perihepatic ascites; cholecystectomy; pancreatic postresection status with a hypoechoic mass. The gastroscopy showed: esophageal mucosa with whitish plaques, hiatal hernia, and the gastric stump with mucosal erythema and the colonoscopy was negative. The histopathological diagnoses were: reactive gastropathy, EC and fragments of corporeal mucosa with parietal cells hypertrophy. Despite the history of gastric surgery, the epigastric mass was not a gastric cancer, but probably a pancreatic tumor. Anemia was not due to digestive bleeding, but probably to poor iron absorption, hypersplenism and neoplasia. After compensation of metabolic and electrolytic imbalances, the patient was referred for neurologic, surgical and oncologic evaluation. **Conclusions:** Alcohol related digestive conditions may be associated in the same patient, with increased mortality and impairing the quality of life. Liver cirrhosis and gastric surgery are risk factors for EC correlated with decreased acid secretion and immunocompromised status.

Keywords: cirrhosis, esophageal candidiasis, duodenopancreatectomy

OCULO-AURICULO-VERTEBRAL SPECTRUM- CASE REPORT

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Background: Oculo-auriculo-vertebral spectrum is a disorder of the craniofacial morphogenesis that involves first and second pharyngeal arches derived structures. It is currently known that it occurs in 1/30.000 live births (male-to-female ratio of 3:1) and it is etiologically and pathogenetically heterogeneous. Phenotype vary from mild to severe, characterized by anomalies in the development of the mandible, ear and vertebral column. Cardiac, urinary and nervous system malformations are frequently associated, along with conductive and sensorineural hearing loss, because of the ear malformations in most cases. **Objective:** In order to illustrate the phenotypical characteristics and correlate features with literature data, we present the case of a 6-year-old female. **Material and methods:** The patient is the second child of an unrelated couple, the father suffering from hereditary multiple exostoses, the birth was uneventful. Clinical examination revealed: facial asymmetry with left face hypoplasia, malformed ear, multiple exostoses, mild intellectual disability; At age of 4-year-old the patient needed surgical intervention for Wilms tumor. **Results:** Investigations concluded unilateral conductive hearing loss, while the karyotype is normal: 46,XX. We will bring in the discussion the need of early diagnosis considering the environmental factors during pregnancy and the treatment for hearing loss that the medical team must take in order to make improvements in patient's life. **Conclusions:** OAVS manifests in a wide range of abnormalities, fact that implies the necessity of multidisciplinary collaboration in order to find the right treatment, especially considering the associated malformations. These need a strict observation in time and in some cases, surgical intervention, as it is the case for cardiac or urinary defects. Even though both genetic and environmental factors have been considered, the causes are not completely elucidated, making the mission of the medical team to handle such cases even more difficult.

Keywords: OAVS, ear malformation, facial asymmetry, development disorder

PURULENT OTITIS MEDIA IN A 6-MONTH-OLD INFANT THAT UNCOVERED THE DIAGNOSIS OF TETRALOGY OF FALLOT

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Background: Tetralogy of Fallot (TOF) represents the most common cyanotic congenital heart malformation including a ventricular septal defect (VSD), valvular and infundibular pulmonary stenosis, override of the ventricular septum by the aortic root and right ventricular hypertrophy. Clinical manifestations of TOF depend on the severity of the infundibular stenosis of the pulmonary artery being represented mainly by hypoxic spells. **Objective:** This paper aims to report a case of a 6-month infant diagnosed with TOF during an episode of a respiratory intercurrent, with no symptoms beforehand. **Material and methods:** A 6-month-old infant with 1st-degree dystrophy presented in the emergency room with low oxygen levels after receiving anti-inflammatory treatment for a viral infection. The clinical exam showed: cyanotic teguments, with oxygen saturations of 59-75% increased to 89% with oxygen therapy, a systolic murmur and psychomotor restlessness with associated fever. The paraclinical exam revealed biological inflammatory syndrome and anemia. The ENT examination diagnosed a purulent otitis media treated with an antibiotic. Considering the persistency of decreased oxygen values a cyanogenic congenital cardiac malformation was suspected. The echocardiography described the specific parameters for TOF with a severe infundibular and valvular pulmonary stenosis. For the prophylaxis of hypoxic spells, the patient received Propranolol and also the correction of anemia was instituted. Because of the severe hypoxic spells hardly responsive to treatment, the surgical primary total repair was performed in emergency conditions, preceded by an Angio-CT which described normal dimensions for the pulmonary valve, trunk, and branches. **Results:** Postoperative evolution was decelerated but favorable, prolonged by requiring untimely resuture of the patch, sustained inotropic agents, laryngeal syndrome post-endotracheal intubation and infection of the mediastinal plague. **Conclusions:** Persistent hypoxic spells represent a cardio-surgical emergency. The lack of intrauterine fetal morphology assessment and a complete professional examination of newborns can lead to a delayed diagnosis of congenital cardiac diseases.

Keywords: Tetralogy of Fallot, hypoxic spells, infant

ACUTE ISCHEMIC STROKE DUE TO SIMULTANEOUS OCCLUSION OF BOTH MIDDLE CEREBRAL AND BASILAR ARTERY - A CHALLENGING CASE

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Background: Ischemic stroke is defined as a cerebral dysfunction generated by an acute reduction of blood flow to a brain region. Most frequently (90 up to 99% of the cases) a large vessel occlusion (LVO) occurs in the carotid artery territory, compared to 10% in the vertebrobasilar system. Simultaneous occlusion in both systems is extremely rare. Standard therapy for acute ischemic strokes caused by LVO is intravenous thrombolysis and mechanical thrombectomy (MT). **Objective:** To report a case of simultaneous occlusion of both middle cerebral artery (MCA) and basilar artery (BA) treated by mechanical and aspiration thrombectomy. **Material and methods:** A 74-years old patient known with ischemic heart disease and atrial fibrillation was admitted in the emergency room with nausea, vomiting, nystagmus, and loss of consciousness. An initial CT angiography was interpreted as normal. After intravenous thrombolysis, the patient's status improved. However, during recovery, he suddenly developed a left hemiparesis and entered into a coma. A second CT angiography was performed, showing a MCA occlusion. **Results:** The patient was referred to the interventional radiology department, where the diagnosis of MCA occlusion was confirmed via catheter angiography, and MT with a stent-retriever was performed. Complete recanalization was obtained after one single stent-retriever pass. Injection into the left vertebral artery revealed an occlusion of the basilar artery tip and right posterior cerebral artery caused by a thrombus, which was removed by aspiration thrombectomy. **Conclusions:** In extremely rare circumstances, atrial fibrillation can lead to simultaneous thromboembolic large vessel occlusions in both ICA and BA territories. Careful neurological and imaging evaluations are crucial not to overlook this devastating clinical situation.

Keywords: mechanical thrombectomy, simultaneous occlusion, middle cerebral artery, basilar artery

SYSTEMIC LUPUS ERYTHEMATOSUS - THE IMPORTANCE OF AN EARLY DIAGNOSIS

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Background: Systemic lupus erythematosus (SLE) is a chronic autoimmune disease, characterized by the loss of "self" tolerance and the appearance of autoantibodies responsible for cell destruction. SLE has high clinical variability and can involve any organ system, in most cases producing a decrease in the quality of patient's life. **Objective:** This presentation's purpose is to emphasise the complexity of multi-organ damage, as well as the consequences of the disease on the patient in cause. **Material and methods:** We present the case of a 16-years old female patient with no medical history, who was admitted to the emergency room with severe abdominal pain, located in the right hypochondrium and the right iliac fossa, with an altered general condition. Clinical and paraclinical tests were performed in order to identify the patient's current condition. Laboratory tests showed positive inflammatory markers, leukopenia and thrombocytopenia, the thoracic and abdominal CT scan highlighted significant pericardial effusion, ascites fluid and pleurisy. **Results:** The patient was referred to the pediatric department, where further investigations were carried out for the purpose of establishing the diagnosis. Echocardiographic assessments showed an increasing amount of pericardial fluid, for which a thoracic drain was placed, bacteriological examination having a negative result for Mycobacterium Tuberculosis. Immunological tests are also performed, revealing increased values of double-stranded DNA and antinuclear antibodies. Subsequent urine test highlighted proteinuria, the key element of lupic nephropathy, a condition which was revealed at a later renal biopsy. According to these results, the final diagnosis established was systemic lupus erythematosus, with subsequent favourable evolution of the patient under the appropriate treatment. **Conclusions:** Due to the clinical polymorphism of SLE, the diagnosis is often difficult and delayed. For this reason, the early diagnosis is essential in order to improve both the expectancy and the quality of the patient's life.

Keywords: systemic lupus erythematosus, pericarditis, early diagnosis

KINDLER SYNDROME: A CASE-REPORT OF A RARE INHERITED DERMATOLOGICAL DISEASE.

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Background: Kindler syndrome (KS) is a rare dermatological hereditary disorder characterized by congenital skin blistering, poikiloderma, photosensitivity, and cutaneous atrophy. Although the condition presents during early childhood, numerous patients have not been diagnosed until later in life. **Objective:** The aim is to present a case report of a 52-year-old male patient from the rural area, recently diagnosed with Kindler Syndrome, and also to point the importance of the genetic analysis in this syndrome through this case presentation **Material and methods:** A 52-year-old male, born to skin-healthy parents, presented to our clinic for the presence of sunburns at the minimal exposure to sunlight, multiple painful blisterings on the hands, feet, and face since birth, anal stenosis, responsible for severe constipation, urethral stenosis, dysphagia from early childhood due to multiple oesophageal strictures and photosensitivity from adolescence. Physical examination showed poikiloderma involving the back, the upper chest, the face and the neck. Also, plantar hyperkeratosis and onychodystrophy were found. The ophthalmologic examination revealed neovascularization, corneal-thinning and keratoconjunctivitis. The oral cavity investigation described periodontitis, desquamative gingivitis, xerostomia and keratotic papules in the oral mucosa. The haematological, biochemical and immunological examinations were normal. **Results:** The histopathological examination described highly dilated vessels with severe histiocytic infiltration, pigmentary incontinence, hyperkeratosis, and dermal atrophy, characteristics for KS. No depositions of complement or immunoglobulins were found during immunofluorescence mapping. Mutation analysis of the *FERMT1* gene on the short arm of chromosome 20 was initiated, and the KS mutation in exon 5 of the gene was present. **Conclusions:** Patients suffering from KS are characterized by multiple malformations and the high-risk of developing squamous cell carcinomas, therefore, the genetic diagnosis of this disorder is important for the future management of this rare type of epidermolysis bullosa.

Keywords: Kindler Syndrome, Epidermolysis bullosa, Dermatological hereditary disorder

THE APPEARANCE AND THE SEQUAE OF GORLIN-GOLTZ SYNDROME IN A 27-YEAR-OLD PATIENT: A CASE-REPORT.

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Background: Nevoid basal-cell carcinoma syndrome (NBCC) or Gorlin-Goltz syndrome is an infrequent generic autosomal dominant inheritance with variable expressivity and penetrance caused by a mutation on chromosome 9 in the PCTH gene. It is rare (one in 57000 cases) and characterized by palmo-plantar pits, numerous basal-cell carcinomas, odontogenic keratocysts, and skeletal changes. **Objective:** The aim is to present a case report of a 27-year-old female patient, recently diagnosed with NBCC, and also to show the importance of a correct early diagnosis in order to successful management of this syndrome. **Material and methods:** We report a case of a 27-years-old woman who was referred to our clinic for the presence of 71 lesions compatible with BCC on face, neck, members, chest, and back with a two years evolution. Multiple palmar pits, 5 jaw cysts, calcification of the flax cerebri, bilateral calcified ovarian fibromas, hypertelorism, high-arched palate, and pectus deformity was also found. Hematoxylin-eosin stained sections showed similar features including: large round islands of basaloid keratinocytes extended from the epidermis to the dermis with peripheral palisading and mucin pools within the tumors. As some of the basal-cell carcinomas are maybe locally destructive, removal of those situated near crucial structures, such as eye, and ears, had been recommended. **Results:** The histopathological appearance of BCCs in patients with NBCCS are indistinguishable from those seen in sporadic BCCs, although the typical initial lesions are usually organoid and possess a denser fibrous stroma: proliferation of stands or islands of basaloid tumor cells with dense nuclei embedded in dense stroma; peripheral palisading of tumor cells resembling the basal layer and multiple cleftings between tumor masses and stroma. **Conclusions:** Because patients suffering from NBCCS are characterized by multiple malformations and the development of numerous BCCs, knowledge of this disorder is important in order to an early correct diagnosis of this neoplasm.

Keywords: Gorlin-Goltz Syndrome, Nevoid basal-cell carcinoma, Basal-cell carcinoma

SEVERE AORTIC COARCTATION ASSOCIATED WITH TURNER'S SYNDROME IN A 13-YEAR-OLD TEENAGER - A CASE REPORT.

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Background: Congenital heart defects are frequently associated with Turner's syndrome. Even though aortic coarctation is the most common cardiac defect found in patients with Turner's syndrome, a larger range of different malformations, such as aortic bicuspidy and aortic dissection can be witnessed. **Objective:** This case report aims to present the evolution of a 13-year-old teenager, diagnosed with aortic coarctation during a routine endocrinological check, the girl also associating Turner's syndrome. **Material and methods:** We present the case of a 13-year-old girl, which was first referred to our clinic in November 2019, for fatigability, headache, and elevated tensional values. From the pathological records, we mention that she was diagnosed at the age of 10 with Turner's syndrome, Hashimoto's thyroiditis, and growth hormone deficiency, the latter under substitutive treatment. The clinical exam revealed the characteristic aspects of Turner's syndrome (short stature, low-set ears, broad chest, low hairline insertion), unpalpable femoral pulse, systolic murmur with posterior radiation, a non-invasive systolic gradient of over 25mmHg. Holter examination revealed a median systolic-diastolic pressure greater than the 95th percentile, the patient being under anti-hypertensive treatment associating beta-blockers and ACE-inhibitors. The eco-cardiography showed: left ventricular hypertrophy with good systolic-diastolic function, a competent bicuspid aortic valve, and a significative narrowing of the aortic isthmus, after the emergence of the subclavian artery, with a maximal gradient at this level of 60mmHg. For the anatomical evaluation of the aortic arch and possible therapeutic strategies, a thoracic Angio-CT scan was performed revealing a narrowing of 5mm of the aortic isthmus. **Results:** The patient is eligible for interventional treatment by percutaneous balloon-expandable covered stent implantation. **Conclusions:** The severity and clinical aspects of the associated cardio-vascular defects found in Turner's syndrome may vary from asymptomatic patients to more serious clinical presentations of

the cardiac affliction, the risk of aortic dilatation and dissection being high in this X-chromosomal abnormality.

Keywords: Turner's syndrome, Aortic coarctation, Teenager

FATAL BACTERIAL MENINGITIS IN A 1-YEAR-OLD CHILD WITH MULTIPLE INFECTIONS: A CASE REPORT

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Background: Meningitis is defined as inflammation of the meninges. Antibiotic therapy has dramatically improved the prognosis in patients with bacterial meningitis, although it continues to be a significant cause of morbidity and mortality in children. **Objective:** Evaluation of symptomatology and the diagnostic steps in a fatal case of acute bacterial meningitis, in a 1-year-old child. **Material and methods:** The onset of the disease was preceded by an acute febrile illness of 4 days duration, accompanied by inconsolable crying and heavy breathing. The patient is known with 2 abscesses, both operated and both showed an infection with methicillin-resistant *Streptococcus Aureus*. After being admitted, she received antibiotic treatment, but due to the unfavorable evolution with the persistence of fever, the appearance of myoclonus and the ceiling of the eye, the patient is transferred to the ICU Children's Department. The clinical exam revealed influenced general status, pale complexion, nuchal rigidity, lethargy and seizures. **Results:** Paraclinical test results showed: anemia, neutrophilia, leukopenia, elevated transaminases and hyperkalemia. The blood culture and the CSF analysis came positive for *Streptococcus Pneumoniae*, while the gastric lavage culture was positive for tuberculosis; pulmonary radiography revealed bilateral peribronchovascular infiltration and the CT diffuse cerebral edema with left maxillary sinusitis. The EEG showed a pattern of monomorph slow delta waves. The patient received antibiotics, corticosteroids, immunoglobulines, antiepileptic drugs, but regardless of the therapy undertaken, the patient died after 15 days hospitalized in the ICU. **Conclusions:** We establish the diagnosis of tuberculous and pneumococcal meningitis, sepsis, complicated with bronchopneumonia, cerebral edema, status epilepticus, which ended with cardiorespiratory arrest. Meningitis remains a serious pathology among children and it requires prompt diagnosis and rapid treatment. In this case, because of the late presentation at the hospital and the history of infections, the evolution was unfavorable.

Keywords: bacterial meningitis, sepsis, pediatric

FEBRILE SEIZURES IN THE PATHOLOGY OF PEDIATRIC CLINIC I TÂRGU-MUREŞ

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Background: The term febrile seizure describes any seizure that occurs in the context of a febrile episode, but it does not constitute a diagnosis per se. Usually, no further investigations are necessary in the case of children with simple febrile seizures. The treatment involves keeping the symptomatology under control and treating the acute disease that caused the fever. **Objective:** The purpose of this paper is to evaluate the clinico-etiological aspects and the evolution of febrile seizures. **Material and methods:** A retrospective study was performed over a 3-year period (2015-2017), with 47 patients admitted to the Pediatric Clinic I Târgu Mureş with a diagnosis of febrile seizures. The processed data were obtained from the observation sheets: character, duration and symptoms associated of the seizures, respectively the acute underlying disease. The data were statistically processed using Microsoft Excel. **Results:** Most of the patients included in the study were boys (68%), the average age of onset of febrile seizures was 25 months. In 80.8% of cases the birth was on term, while 19.1% were premature, 19.1% were diagnosed with neuro-psycho-motor retardation at the time of admission. In 34% a pathology was associated with pregnancy. 34% of cases had recurrent febrile seizures. The duration of the febrile seizures was below 15 minutes in all cases, most of them were of the tonico-clonic type (65.9). As associated symptoms: blank stare in 63.8% of the cases, the deviation of the eyeballs in 17% and peri-oro-nasal cyanosis in 29.7% of patients. Acute underlying disease was represented in most cases by acute upper respiratory tract infection (85.10%). **Conclusions:** Prematurity and pathology associated with pregnancy were predisposing factors in the studied group for febrile seizures. Most of the patients included in the study had simple febrile seizures.

Keywords: febrile seizures, prematurity, pediatric pathology

CORRELATION BETWEEN CONUT SCORE AND COMPLICATION RATES IN ACUTE MYOCARDIAL INFARCTION PATIENTS

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Background: Nutritional status involvement in acute myocardial infarction (AMI) patients outcome still needs to be elucidated. **Objective:** We aimed to evaluate the correlation between CONUT score as an expression of nutritional status and complication rates during hospitalization for AMI. **Material and methods:** Our study included 51 subjects with AMI in which PCI and stenting was performed. Nutritional status assessment consisted in CONUT score calculation. Study cohort was distributed in 2 groups giving the CONUT scores: group 1 □ CONUT scores under 3 pts and group 2 □ CONUT scores above 3 pts. Study endpoints comprised in incidence of in-hospital complications. **Results:** A total, 51 subjects (48.71% with STEMI, 51.29% with NSTEMI) were included in the study. There were no differences between study groups in terms of age, gender and common CV risk factors. With regard to in-hospital complications second study group showed a higher proportion of hemodynamic instability (group 1 □ 12.5% vs. group 2 □ 37.2%, p=0.03). There was no significant difference in terms of overall hospitalization period, but duration of stay in ICCU was longer in group 2. **Conclusions:** This study demonstrate that altered nutritional status in AMI patients who undergo PCI is correlated with higher rates of in-hospital complications as well as with longer duration of stay in ICCU.

Keywords: nutritional status, acute myocardial infarction, complication rate, intensive cardiac care unit

MULTIDISCIPLINARY APPROACH OF HYPOKALIEMIC PARALYSIS CAUSED BY URETEROVESICAL AND RECTOVAGINAL FISTULISATION: A CASE REPORT

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Background: A balanced composition of electrolytes is fundamental for maintaining homeostasis. Consequently, a decreased postassium level greatly affects multiple organ systems. Severe hypokaliemia, described as potassium levels below 2.5-3 meq/l, causes alterations in proper nerve function, and may lead to paralysis, highly affecting the patient's quality of life. It may be caused by multiple factors, including genetic background and inadequate intake, yet identifying its exact origin can, at times, become a challenge for physicians. **Objective:** The aim of this presentation is to feature a peculiar case of hypokaliemic paralysis, and highlight the importance of interdisciplinarity in establishing a correct diagnosis. A case of a 45 years old female patient, known with cervical neoplasm, staged 3B, formerly treated with chemotherapy and radiotherapy, admitted in the obstetrics and gynecology clinic for ureterovesical and rectovaginal fistula, is described. Despite her favorable initial state, she rapidly develops motor deficits in the upper and lower limbs. The neurological consult reveals a former bilateral hearing loss, tetraparesis in the upper and lower limbs, osteotendinoid reflexes abolished in the lower limbs and diminished in the upper limbs, yet with no disturbance in superficial sensitivity. Laboratory results underlined a potassium level of 1,2 meq/L, suggesting severe hypokaliemia. **Material and methods:** The adjustment of the electrolyte imbalance is initiated. The patient is kept under close observation in the intensive care unit. **Results:** Neurological deficits recede once the potassium level is brought to the physiological margin. **Conclusions:** The physician's diligence is essential, especially in regards to patients whose state tends to alter promptly. Therefore, although the patient's initial issue was concerning the obstetrics and gynecology department, neurological defects occurred. In that sense, a multidisciplinary approach was fitting, demonstrating the complexity of the human body and the interdependence of the body systems.

Keywords: Hypokalemia, Paralysis, Fistula, Multidisciplinarity

A WOLF IN SHEEP'S CLOTHING – BENIGN METASTASIZING LEIOMYOMA

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Background: Benign metastasizing leiomyomas (leiomyomata) are a rare non-malignant metastatic phenomenon that may be observed in premenopausal women with a history of hysterectomy for uterine leiomyoma. They are usually asymptomatic and the most common site of metastasis is the lung. **Objective:** We aim to present the treatment of an uncommon benign condition which causes the apparition of metastasis. **Material and methods:** We present the case of a 44 year old woman who, in 2012, was hospitalized for routine medical investigations. From her medical history we retain that she was diagnosed with hypothyroidism at the age of 30, got under treatment with levothyroxine and underwent total hysterectomy for uterine leiomyoma at the age of 35. The ultrasound scan revealed a cyst on the left ovary and the chest x-ray showed multiple opacities in both lungs. The patient underwent left salpingo oophorectomy and the histopathologic examination confirmed intravenous leiomyomatosis. Following, a right thoracotomy with the excision of multiple tumors was performed. The histopathologic examination of the pulmonary fragments revealed smooth muscle differentiation. **Results:** The patient was treated with medroxyprogesteron acetate (160 mgx2/day) but after three years, due to the progression of the disease, it was replaced with anastrozole (1 mg daily) and the patient had a stable disease until now. The treatment was well-tolerated, the patient having felt only light fatigue. **Conclusions:** Despite being a rare condition, with a fine line between benign and malignant and the presence of metastases, the disease has been well managed for a long time under hormonotherapy. The particularity of the case lies in the long term response under anastrozole, with a few cases presented in the medical literature having had such a good response to this kind of treatment.

Keywords: leiomyoma, metastasis, hormonotherapy

AN UNUSUAL CASE OF METASTATIC LUNG CANCER

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Background: Lung cancer, divided in 2 types, small cell and non-small cell, is the cause of most cancer-related deaths worldwide. Known for its aggressiveness, lung cancer most commonly metastasizes to the lungs, the liver and the bone, while acrometastases are a rare observation. **Objective:** The aim of our paper is to present the evolution of a patient suffering from lung cancer with a less common form of metastasis. **Material and methods:** A 58 year old male was hospitalized in the Rheumatology clinic for a painful lump in the distal phalanx of the right index finger, rib pain and hemoptysis. The anamnesis revealed: smoker of 30 packs/year and grade 3 essential hypertension under treatment with Telmisartan and Amlodipine. An X ray of the right hand highlighted cvasicomplete distal phalanx osteolysis in the index finger. Therefore, it was recommended a thoraco-abdominal CT scan which showed a tumor in the posterior segment of the right upper lobe, infiltrated intrathoracic lymph nodes and osteolytic bone lesions in the sternum, ribs and the thoracic spine. He underwent amputation of the distal phalanx, being considered the best therapeutic solution in this case. The pathological report confirmed bone metastases secondary to lung adenocarcinoma. It was established the diagnosis of stage IV lung adenocarcinoma cT2aN3M1b. **Results:** As of March 2013, the patient underwent a first-line chemotherapy protocol with cisplatin-gemcitabine with partial response. After 6 months, due to the progression of the disease, a palliative treatment was initiated using Docetaxel and then switched to Erlotinib. The patient survived 25 months. **Conclusions:** The singularity of the case consists of the rarity of acrometastases as a sign of lung cancer and can create difficulties in establishing the diagnosis.

Keywords: lung cancer, acrometastases, chemotherapy

FATAL PULMONARY EMBOLISM FOLLOWING CALVES FRACTURE

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Background: Pulmonary embolism (PE) is a blockage of an artery in the lungs by blood clot that has moved from elsewhere in the body through the bloodstream (embolism). The thrombus become lodged in an artery in the lung and lock blood flow to the lung. Symptoms of a PE may include shortness of breath, chest pain particularly upon breathing in, and coughing up blood. Fracture of the calves by its consecutive deep vein thrombosis after mobilization is a well-recognized risk factor for pulmonary embolism (PE). **Objective:** Our intention is to present a case of a patient with both shin and fibula fracture diagnosed with PE after the autopsy. **Material and methods:** 73 years male patient, obese, former smoker (10 packs-year) known with arterial hypertension, with no family history of a bleeding disorder or a coagulopathy presents at emergency room after a traffic accident, him being a pedestrian. Orthopedic immobilization was used, after that he was released. Low-molecular-weight heparin was prescribed for home use. Twelve days after the he died unexpectedly. **Results:** At the autopsy we found intraluminal adherent thrombs in the main pulmonary arteries and also in the small branches of the pulmonary artery. Also by opening the the fracture zone we found adherent thrombs in the popliteal and femoral veins. **Conclusions:** The conclusion was that the person death was violent, and it was caused by the respiratory arrest because of the PE in a person immobilized after the trauma. Between the trauma and death the causality was indirect or secondary.

Keywords: pulmonary embolism, fracture, thrombosis

THYROID METASTASIS OF CLEAR CELL RENAL CELL CARCINOMA: A CASE REPORT

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Background: Thyroid metastases are uncommon, the kidney being among the most frequent primary tumor site. **Objective:** Our objective was to present and highlight the diagnostic challenges raised by our case. **Material and methods:** We report the case of a 77-year-old female, with no particular clinical history, admitted to the hospital with an initial diagnosis of multinodular goiter. A total thyroidectomy was performed and the specimen was sent to the Pathology Department for histopathological evaluation. **Results:** Macroscopical examination of the surgical specimen revealed a well circumscribed whitish, multilobulated nodule measuring 60x45 mm in the right thyroid lobe. The nodule occupied almost the entire lobe and presented multiple necrotic and hemorrhagic foci. At microscopy, the nodule consisted of tumor cells arranged in nests or cords, separated by a fine vascular network; the tumor cells had clear cytoplasm and small, uniform nuclei. A sarcomatoid component was also identified with solid, papillary tumor architecture. In these areas, necrosis and monstrous cells with oncocyctic cytoplasm and pleomorphic nuclei were observed. The tumor cells showed strong positivity for CD10 and negativity for TTF1, Thyroglobulin, HMB45 and Chromogranin. One lymphonodular micrometastase with clear cells was also identified, with similar morphology to the tumor in the thyroid, confirmed also by positive CD10 immunoreactivity. Based on the morphological features and the immunohistochemical profile, a diagnosis of clear cell renal cell carcinoma (CCRCC) metastatic in the thyroid was set. After the histopathologic evaluation, the patient was referred to the Oncology Department for further investigation. **Conclusions:** The diagnosis of CCRCC metastatic to the thyroid gland is challenging, especially when the thyroid metastasis is the first manifestation of the disease, like it was in our case. In setting a correct diagnosis immunohistochemical studies are mandatory in order to confirm the renal origin of the thyroid metastasis.

Keywords: metastasis, CCRCC, thyroid gland

HEMOPERITONEUM: A RETROSPECTIVE EVALUATION OF HISTOPATHOLOGICAL REPORTS

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Background: Hemoperitoneum represents an accumulation of blood in the peritoneal cavity and induces acute abdomen, mostly caused by trauma. **Objective:** The aim of this paper was to check the clinicopathological features of patients with hemoperitoneum, from the histopathological reports. **Material and methods:** The cases diagnosed in 2015, at the Department of Pathology of Clinical County Emergency Hospital of Tîrgu-Mureș, were retrospectively analyzed. The autopsy reports were not included. **Results:** During one year, 39 patients (about 3 cases per month) underwent surgical interventions for acute abdomen caused by hemoperitoneum. Male patients were mostly affected (n=26) in their 5th decade (41-50 years), whereas women (n=13) were affected in the 3rd decade (21-30), with no cases identified after the pre-menopausal period. Most of the cases were induced by splenic rupture (n=29), followed by the rupture of ovary or salpinges (n=6). Mesenteric infarction (n=2) and liver rupture (n=2) were also identified. **Conclusions:** Independently by age or gender, splenic rupture is the main cause of hemoperitoneum. In young females, hemoperitoneum is induced by gynecological problems.

Keywords: Hemoperitoneum, splenic rupture, ectopic pregnancy

MANAGEMENT OF ACUTE MYOCARDIAL INFARCTION IN A YOUNG ADULT

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Background: Acute ST-elevation myocardial infarction (STEMI) is a rare condition in young adults. Although not a common pathophysiological mechanism, atherosclerotic plaque rupture may be involved in those with genetically predetermined or familial dyslipidemias. **Objective:** We aim to present the case of a postero-infero-lateral Killip class IV STEMI with resuscitated cardiac arrest in a 33-year-old female patient with family history of premature cardiovascular events. **Material and methods:** The patient was referred to emergency unit after constrictive anterior chest pain, dyspnea and diaphoresis started 5 hours before presentation. ECG reveals ST elevation of 4-5 mm in infero-lateral leads and depressed ST segment in V1-V4 ("mirror image"). Cardiac high-sensitive troponin levels were positive (hs-cTnI 1850 ng/l). Echocardiography showed severe altered left ventricular function with significant hypokinesia of the inferior and lateral left ventricular wall. During assessment in emergency department patient presented sudden hemodynamic deterioration, ventricular fibrillation followed by 2 episodes of cardiac arrest resuscitated with success. Coronary angiography performed in emergency conditions showed the presence of a two-vessel coronary disease with acute thrombotic occlusion in mid-circumflex artery segment and critical stenosis in the mid-right coronary artery segment. **Results:** Successful percutaneous coronary intervention with drug-eluting stent implantation after repeated mechanical thrombectomy was performed on culprit lesion located on circumflex coronary artery followed by second drug-eluting stent implantation on residual lesion in right coronary artery. **Conclusions:** A reported family history of premature cardiovascular events proved to be associated with an increased atherosclerotic burden in patients classified as being at low to intermediate risk on the basis of conventional assessment.

Keywords: acute myocardial infarction, premature cardiovascular events, cardiac arrest, atherosclerotic plaque rupture

YOUNG MAN WITH DILATED CARDIOMYOPATHY POSSIBLE CAUSED BY MYOCARDITIS.

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Background: Myocarditis proved to be in general a mild and self-limited consequence of a systemic infection with

cardiotropic viruses. However, in a restricted number of patients, myocarditis can lead to a temporary or permanent cardiac impairment including acute cardiomyopathy with hemodynamic compromise. **Objective:** We aim to present the case of a 39-year-old man patient who presented with symptoms of severe acute congestive heart failure secondary to myocarditis induced dilated cardiomyopathy caused by viral infection. **Material and methods:** A 39-year-old male patient presented to emergency department with the complains of sudden-onset fatigue, dyspnea, high fever; with massive peripheral edema at initial physical examination. Emergency echocardiography showed globally severe impaired left ventricular function, dilated left ventricle, with significant mitral regurgitation. Inflammatory profile identified positive serum values for both CRP and erythrocyte sedimentation rate suggestive for pronounced systemic inflammation. In order to exclude ischemic etiology coronary angiography was performed which proved to be conclusive for normal coronary arteries. Cardiac magnetic resonance (CMR) provided strong evidence for regional myocardial edema and inflammatory necrosis, criteria suggestive for the diagnosis of acute myocarditis. **Results:** After continuous intravenous infusion of loop diuretic and symptomatic heart failure treatment patient presented progressive clinical improvement. **Conclusions:** In our case viral myocarditis proved to be the etiology leading to permanent cardiac impairment clinically expressed as severe acute cardiomyopathy in dilated form.

Keywords: acute congestive heart failure, dilatated cardiomyopathy, myocarditis

A RARE CASE OF MEDIASTINAL NON-HODGKIN LYMPHOMA IN A PACIENT WITH MOLAR PREGNANCY IN RECENT HISTORY

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Background: Mediastinal non-Hodgkin lymphomas (NHLy) represent nearly 5% of all NHLys with involvement of mediastinal lymph nodes (LNs), thymus and/or mediastinal organs (lung, pleura, heart, pericardium). The radiological presentation is variable: from a mediastinal mass (with or without superior vena cava syndrome, associated with effusion) to effusion only. **Objective:** Emphasising the particularities and the complex diagnostic methods for a NHLy in case of a patient with personal history of molar pregnancy. **Material and methods:** Case report that highlights the targeted investigations for diagnosing a mediastinal mass. **Results:** A 31-years-old female, non-smoker, without professional exposure, known with chronic anemia and a molar pregnancy 7 months ago, showed up in the Pulmonology Clinic accusing cough, hemoptysis, chest pain, fatigue, loss of appetite, vertigo, dyspnoea and sweats. The clinical examination: jugular turgidity and pale skin without palpable adenopathies. Blood tests: hemoglobin 11.9 g/dL, neutrophils 85%, lymphopenia 12.1%, normochromia of the red cells with rare ovalocytes. The functional respiratory tests: moderate mixed ventilatory dysfunction. The chest X-ray and CT revealed a huge anterior mediastinal mass, pulmonary consolidation with discrete pleural and pericardial effusion. The chest X-ray 7 months ago was normal (part of the routine control following the molar pregnancy). Bronchoscopy showed a tracheal compression with hyper-vascularization and infiltration of left upper lobe bronchus. The aspirate was negative for Koch bacillus and tumoral cells. Mediastinoscopy with biopsy was suggestive for diffuse NHLy. However, there is no evidence in literature about the direct connection between molar pregnancy and NHLy, it should not be neglected that the patient went through immunosuppressive therapy. **Conclusions:** The diagnosis was disputed due to the absence of peripheral adenopathies and atipic presentation, but the mediastinoscopic findings led to the correct diagnosis. The interdisciplinary team was crucial for the accurate diagnosis and targeted treatment.

Keywords: mediastinum enlargement, non-Hodgkin lymphoma, molar pregnancy

CASE REPORT : LIPOID PNEUMONIA MIMICKING LUNG CANCER

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Background: Lipoid pneumonia ,also known as cholesterol pneumonia, is defined as a less common illness determined by the inhalation of fatty substances and mineral oil. More than half of the patients that develop lipoid pneumonia, lack symptoms and get diagnosed accidentally during a routine thoracic radiography **Objective:** The aim of this presentation is to emphasize the importance of paraclinical examinations regarding respiratory

diseases, as they diminish differential diagnosis uncertainty. **Material and methods:** I present the case of a 66 year old man, reporting to the hospital due to severe respiratory illness. He admits using a lipid-based nasal spray for a long period of time, which he takes prior to sleep with his CPAP device, that includes camphor oil. He underwent chest radiography, which revealed a left lingular lobe opacity, initially diagnosed as pneumonia. He was tested positive for Influenza A, followed a treatment with antibiotics for several days and his symptoms remitted. Subsequently, he underwent a chest X-Ray to assess radiographic resolution, but the lesion persisted. A CT scan was conducted, highlighting a spiculated left lingular lobe nodule. Successive PET-CTs redemonstrated the mass, with mild FDG-avidity, which raised concerns of lung cancer. The patient is a life-long non-smoker, denying symptoms such as : persistent cough, hemoptysis or weight loss. **Results:** Therefore, CT-guided biopsy was performed and it displayed florid fibroinflammatory response associated with polarizable material and lipid, consistent with aspiration. There were no signs of malignancy, as AE1/AE3, TTF-1, and PU.1 stains were examined. Repeated PET-CT imaging suggested presence of fat within the nodule and the needle aspirate confirmed lipoid pneumonia. **Conclusions:** The prognosis is excellent if the patient ceases to use lipid-based nasal sprays. If the patient was left undiagnosed, he would eventually develop inflammatory pneumonitis leading to irreversible pulmonary fibrosis.

Keywords: Lipoid pneumonia, Lung cancer, Radiography, PET-CT

A CHALLENGING CASE OF AUTOIMMUNE MYOSITIS - MULTIDISCIPLINARY APPROACH

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Background: When physicians encounter patients with idiopathic inflammatory musculoskeletal pathology, they often face a challenge in diagnosis and therapy. Nonetheless, this group of diseases usually associate several other symptoms, making it difficult to understand the pathogenesis of the affection and the way it developed to its current form. **Objective:** The aim of this presentation is to emphasize the importance of differential diagnosis and clinical assessment, when treating illnesses classified at the borderline between infectious and autoimmune derived. **Material and methods:** The patient is a 27-year-old male, presenting to the infectious diseases hospital accusing : sever myalgia in upper and lower limbs, asthenia, nausea. Following a clinical pathway, he manifested : fever, pale skin, cutaneous hyperesthesia and sweat. While being hospitalized, the patient was thoroughly investigated and it revealed biological inflammatory syndrome(25.000/µL leukocytes) , hypoproteinemia, cholestatic syndrome, hepato cytolysis and he also tested positive for Influenza A . Medical therapy was initiated, with Penicilin G + Gentamicin but there were no signs of healing. In consequence, more investigations were conducted, rheumatoid factors suggested mildly elevated levels of anti-JO-1 antibodies. Thoraco-abdominal-CT and abdominal-ECO showed hepatosplenomegaly and also retroperitoneal and mesenterico-celiac adenopathy, giving hints of a possible lymphoma. **Results:** The patient underwent a bone marrow aspiration and biopsy, which excluded any hematological etiology. Subsequently, the patient was consulted by the rheumatologist who did an electromyography exam, confirming the presence of myositis. Furthermore, the anti-JO-1 antibodies level lead to a definitive diagnosis of autoimmune myositis, denying any suspicions of post-flu muscular inflammation. **Conclusions:** The outcome of the patient turned out to be good, following several days of hospitalization and treatment with : broad-spectrum antibiotics, antifungals and corticotherapy. He was discharged from the hospital in stable conditions, lacking any of the symptoms he initially presented.

Keywords: myositis, anti-JO-1 antibodies, myalgia, electromyography

EOSINOPHILIA IN THE EVOLUTION OF CHILD AML

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Background: Acute myeloid leukemia in children is very rare. The prevalence is 7.7 cases per million. **Objective:** The aim of this work is to present acute myeloid leukemia in children with an uncommon Eosinophilia linked to this disease and to emphasize the use of Immunophenotyping for the diagnosis. **Material and methods:** Our case shows a 4 year old male patient who has palpebral edema at the right eye with exophthalmia and a septic state. At admission he presented with hemoglobin of 4 g/dl and a platelet count of 27.000. Culture taken from secretion

showed Staphylococcus Aureus Meresa and Corynebacterium Diphtheria. His blood smear evidenced 24% blasts and his blood marrow evidenced 30% Myeloblasts. His immunophenotyping taken from bone marrow expressed blasts. Outstanding markers are: CD 34: 80%, HLA-DR 80%, CD13:78%, CD33: 75%, CD15: 70%, CD117:60%, CD19:62%, CD3 neg, CD7 neg, CD10 neg, CD22 neg, CD11B neg, CD14 neg, CD64 neg. Based on the paraclinical data the diagnosis was established AML with an aberrant lymphoid marker CD19. The patient then received induction treatment with Thrombocytic, erythrocytic antimicrotic and antibiotic mass. **Results:** The general state improved after the treatment. When he came back after a while his bone marrow showed pronounced Eosinophilia with more than 50% . Therefore a maintenance treatment was initiated with resulted in a constant decrease of Eosinophilia. **Conclusions:** To conclude we can say that Immunophenotyping is essential for the diagnosis of AML in children and Eosinophilia is rarely in association with the treatment of AML.

Keywords: Eosinophilia, Immunophenotyping, AML

SEVERE VALVULAR AORTIC STENOSIS SECONDARY TO BICUSPID AORTIC VALVE- CASE REPORT

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Background: The most common cause of valvular aortic stenosis among children is the bicuspid aortic valve. These patients can develop severe left ventricular dysfunction and also aortic dilatation, especially in the ascending aorta and this can lead to aortic dissection. **Objective:** Our paper presents a case of a child who was diagnosed with sever aortic stenosis and important left ventricular dysfunction. The aim of our paper was to highlight the importance of early-diagnosis of these patients in order to prevent the progression that can lead to complications. **Material and methods:** We present a case of a 7-year-old male patient, diagnosed at birth with severe valvular aortic stenosis secondary to bicuspid aortic valve (III/6 systolic murmur, left and right parasternal). At one-month old, it was performed the surgical aortic valvulotomy. Initially, post-surgical evolution was difficult because of left ventricular dysfunction and the patient received prolonged positive inotropic medication. The long-term evolution was favorable, the left ventricular function improved and currently he is completely asymptomatic. In evolution, he was periodically evaluated for mild aortic stenosis and dilatation of ascending aorta. **Results:** Regarding left ventricular dysfunction, the patient is in a good condition. The Angio-CT highlighted the aortic dilatation, the maximal diameter of ascending aorta being 3cm, which is equivalent to 158% of the normal value, with a mean increase of 0,5 cm/year, mild stenosis and regurgitation of aorta. According to these values, the patient has indication for surgical intervention. **Conclusions:** Follow-up of patients with bicuspid aortic valve is essential because they can develop complications like valvular aortic stenosis and aortic dilatation and, subsequently, aortic dissection.

Keywords: valvular aortic stenosis, aortic dilatation, bicuspid aortic valve, angio-CT

THE RICKETS IN HOSPITALIZED PATIENTS AT THE PEDIATRIC CLINIC I TÂRGU MUREŞ

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Background: Rickets is a metabolic bone disease, expressed by a clinical syndrome in children, resulting from failure or delay in mineralization of the growth plate of growing bones. Common nutritional rickets continues to represent an important infant pathology, despite recommendation and prophylactic treatment with vitamin D. **Objective:** The aim of this study is to present de incidence of rickets in the Pediatric Clinic I, Târgu-Mureş. **Material and methods:** The study consisted in a retrospective analysis of 34 pediatric patients with signs of rickets or florid rickets who were hospitalized at the Emergency Clinical County Hospital of Târgu-Mureş, Pediatrics Clinic I between 2015 and 2017. The data was collected from medical files of these patients and was introduced in an Excel database. Statistical analysis was performed using Microsoft Excel. **Results:** From 34 patients included in the research 71% were boys and 29% were girls, with the place of origin mostly from urban areas 59 %. The mean age was 1,4 year, with 12 % of them born prematurely and prolonged neonatal jaundice in 26 % of the cases. Only in 59 % of the patients, rickets prophylaxis with vitamin D was performed. 29% were breast-fed less than 6 months and 24% of them were incorrectly diversified under the age of 6 months. Signs of rickets appeared in 59% of the patients, of which the most frequent were the chest wall deformity (pectus excavatum 26%, slow

motor development and hypotonia 18 %, frontal bossing 15%, rachitic rosary and craniotables in 6% of cases). In 18 % of the cases florid rickets was found and 74 % of them showed anemia. **Conclusions:** Rickets prevention with vitamin D is deficient and mothers compliance with its administration is low. Many cases were also associated with nutritional anemia.

Keywords: Nutritional rickets, Florid rickets, Rickets prophylaxis

LICHEN SCLEROSUS: CASE REPORT

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Background: Lichen sclerosis is a chronic inflammatory affection of the skin. Following a clinical pathway, there can be observed lesions that give the skin the appearance of cellophane paper, echymosis, lacerations and follicular keratin clots. **Objective:** The objective of this presentation is to emphasize a case of lichen sclerosis and the clinical implications of this pathology, as well as its treatment. **Material and methods:** The patient is a 36 year old male, with no significant medical history. He presented to the local dermatological division, acusing the following symptoms: hyperpigmented macular lesions spreaded across the trunk skin and papulous lessions characterised as erythematous patches with an overlying grid of white striations, residing in the left subclavian region. Further examination revealed xerotic eczema with painful cracks in the penile gland and the balanopreputial groove. The patient relates enduring pain while urinating. As the patient was hospitalised, a biopsy procedure was conducted taking samples from a cutaneous lesion. **Results:** The result of the histopathological exam pointed out the diagnosis of lichen sclerosis. Lab results tested out positive for helicobacter pylori and also confirmed the presence of the morganella morganii bacteria in the urethral secretion. Antibiogram revealed an intrinsic resistance to ampicillin, clavulanic acid and cefrazidim, sensitivity to cefizime, gentamicin and levofloxacin. **Conclusions:** In most cases lichen sclerosis may resolve itself. Untreated, this affection can lead to a high propability of remaining scars and it associates a high incidence of developing squamous cell carcinoma. On the other hand, medication such as local corticosteroids prove to be effective and help the curing process.

Keywords: macular lesions, xerotic eczema, papulous lessions

A NON-ST ELEVATION MYOCARDIAL INFARCTION WITH A COMPLEX CLINICAL PHENOTYPE

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Background: Available data emerging from latest registry studies revealed a higher incidence of Non-ST myocardial infarction (NSTEMI) particularly in high-risk patients with more complex clinical phenotype, involving older age and increased burden of comorbidities. Consequently, this complexity impacts on long-term outcomes. **Objective:** We report the case of a NSTEMI in a high-risk 60-year-old female patient with several associated cardiovascular and non-cardiovascular comorbidities. **Material and methods:** A 60-year-old patient with significant history of cardiovascular comorbidities (type 2 diabetes, atrial fibrillation, severe aortic stenosis and pulmonary hypertension) presented to the emergency department with retrosternal chest pain and severe dyspnea. ECG showed atrial fibrillation with rapid ventricular response and ST depression in lateral leads. Echocardiography revealed slight reduce LVEF and severe aortic stenosis with peak aortic jet velocity of 4 m/s and mean pressure gradient of 80 mmHg. Based on elevated cardiac troponin level (hs-cTnI 2330 ng/l), clinical presentation and ECG patient was diagnosed with NSTEMI. Biochemical status revealed mild anemia and emergency chest X-ray showed bronchopneumonia. **Results:** After rate control and continuous infusion of diuretic therapy successful PCI with BMS was accomplished on acute marginal artery, with positive patient clinical outcome. **Conclusions:** NSTEMI in high-risk patients with complex clinical phenotype relating a great burden of comorbidities involve challenging clinical decision-making, in whom risk-benefit assessment is crucial for long-term outcomes.

Keywords: NSTEMI, high-risk patient, sever aortic stenosis, percutaneous coronary intervention

CLINICAL AND PARACLINICAL ASPECTS OF PARANEOPLASTIC RHEUMATIC SYNDROMES

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Background: Rheumatologic disorders are frequent complications of cancers and may be a consequence of tumoral invasion of bone, synovial reaction to neighbouring cancer cells, hemarthrosis, secondary effects of cancer treatments, neoplasia secondary to autoimmune rheumatic diseases or to immunosuppressive drugs, and paraneoplastic syndromes. Paraneoplastic syndromes are characterised by symptoms that occur during malignancy, however, not as a direct consequence of the tumour or metastasis. **Objective:** Our objective is to identify specific clinical and paraclinical aspects for paraneoplastic rheumatic syndromes. **Material and methods:** Between April 2019 and February 2020 a total of 19 consecutive patients with previously diagnosed neoplasia, that also presented musculoskeletal symptoms, were evaluated in an outpatient rheumatology clinic. In order to identify the association of a paraneoplastic rheumatic syndrome, each individual was dynamically assessed for the following variables: age, body mass index, complete blood count, calcium serum values, ionized calcium serum values, alkaline phosphatase, intact parathormone, ESR, CRP, lactate dehydrogenase, creatinine kinase, creatinine, urea, uric acid, 24 hour proteinuria, urinalysis. Dual x-ray absorptiometry and x-ray of affected joints were performed for all the patients included in the study. **Results:** Majority of patients in our study group were females (15 patients). 60% of patients presented elevated levels of ESR. Most rheumatic syndromes were observed in breast cancer (5 patients). The study population presented the following rheumatologic manifestations: arthropathy (52%) fibromyalgia (36%), Raynaud's phenomenon (15,7%), polymyositis (5%), seronegative rheumatoid arthritis (5%). **Conclusions:** Paraneoplastic rheumatic syndromes are difficult to diagnose, particularly due to atypical clinical and paraclinical presentations. Early recognition of clinical and paraclinical patterns suggestive of paraneoplastic rheumatic syndromes may improve quality of life in cancer patients as treatment for these complications may be given sooner.

Keywords: paraneoplastic rheumatic syndromes, arthropathy, breast cancer

MICROPAPILLARY VARIANT OF UROTHELIAL CARCINOMA – A SERIES OF CASES REPORT

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Background: Micropapillary urothelial carcinoma is a rare variant that occurs in about 0.6-2,2% of invasive urothelial carcinomas (UC), predominant in males and with poor prognosis. **Objective:** The aim of this study is to present series of micropapillary UC diagnosed in the Pathology Department of Mureş County Hospital over a period of two years. **Material and methods:** We evaluated all UC cases diagnosed in the Pathology Department of Mureş County Hospital during 2018 and 2019. For each patient we have assessed the following data: age, gender, clinical and histopathological diagnosis. The histological type was established in line with the 2016 WHO (World Health Organization) and the pathological stage according to the 2009 TNM Staging System. The diagnosis of micropapillary variant of UC was set based on the microscopical aspect: small nests and aggregates of neoplastic urothelial cells within lacunae, small, branching micropapillae and ring forms. Tumor cells had peripherally oriented nuclei and cytoplasmic vacuoles. **Results:** From a total number of 475 UC micropapillary UC was diagnosed in 10 cases, nine men and one woman. The mean age of the patients was 70 years. In six cases the micropapillary component was associated with high-grade papillary UC while in 4 cases only micropapillary feature was noticed. Regarding the pathological stage nine cases were infiltrative UCs: four cases pT1, three pT2, one pT3a and one pT4a. One case presented as in situ UC, but associated with lymph node metastasis. **Conclusions:** Due to its aggressive clinical course, advanced stage at diagnosis and high metastatic potential, any amount of micropapillary component must be recognized and reported. The treatment of choice in these patients is radical cystectomy with lymph node dissection, even in cases without muscularis propria invasion.

Keywords: micropapillary, urothelial, carcinoma

LEFT INTERNAL CAROTID ARTERY DISSECTION AND ISCHAEMIC STROKE IN A YOUNG ADULT – A CASE REPORT

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Background: Stroke is a leading cause of death and disability worldwide. Most ischaemic strokes are thromboembolic in origin, but carotid artery dissection is a common cause of stroke in patients younger than 40 years old, and accounts for 2.5% of all strokes. **Objective:** Our objective is to describe the clinical context in which ischaemic stroke occurred in a young adult, its diagnosis and outcomes. **Material and methods:** 30-year old male patient, hypertensive, active smoker, alcohol abuser, with traumatic cranio-cervical injury 2 weeks before, currently undergoing no medical treatment at home, admitted in the Neurology I Clinic, SCJU Targu Mures, presenting language disorder and right upper arm monoparesis. Clinical assessment: blood pressure 203/115 mmHg, right central facial palsy, right upper arm monoparesis grade 4/5 (MRCs), brisk right deep tendon reflexes, right upper arm hypoesthesia, mixed aphasia, mainly expressive - Kaplan score 4, NIH Stroke Scale 4. Imaging findings: Carotid Doppler Ultrasonography - high flow resistance of the left internal carotid artery (ICA): major distal intracranial stenosis suspected; Non-Contrast CT - hypodense lesion in the left frontoparietal lobe suggesting subacute ischaemia; CT Angiogram - hypodense lesion and oedema of the left frontal lobe indicating acute/subacute ischaemia; sudden decrease in diameter of the left ICA 2 centimeters above glomus; MRI - ischaemic stroke in the left frontal lobe; decreased left ICA diameter, 3D-FSPGR sequence revealing no flow in its terminal segment; Catheter Angiogram -left ICA dissection. **Results:** The patient is diagnosed with ischaemic stroke following left ICA dissection; under medical treatment, kinesiotherapy, speech-language therapy, he is discharged with no aphasia or paresis, persisting right central facial palsy, brisk right deep tendon reflexes with positive Babinski sign, NIHSS 1, Rankin scale 1. **Conclusions:** In young adults, cardiovascular risk factors for ischaemic stroke are usually ruled out, even in hypertensive patients. We must always look further and identify the underlying cause.

Keywords: ischaemic stroke, carotid artery dissection, young adult

TRICUSPID ATRESIA ASSOCIATED WITH THROMBOPHILIA IN AN 1 YEAR AND 7 MONTHS OLD CHILD - CASE REPORT

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Background: Tricuspid atresia is a cyanotic cardiac malformation defined as congenital absence or agenesis of the tricuspid valve, resulting in no direct communication between the right atrium and ventricle. Patients who have been treated palliatively for this malformation may have systemic or pulmonary thromboembolic events. **Objective:** The aim of this paper is to present an interesting case of a child known with tricuspid atresia who suffered a stroke at home. **Material and methods:** We present the case of an 1 year and 7 months old child who arrives at the emergency room because of generalized tonic-clonic seizures, generalized muscle hypotonia, right hemiparesis and absence of swallowing reflex. The child was known from the fetal period to have a congenital heart malformation, which was confirmed postnatally: tricuspid valve atresia with normal relation of the large vessels, right ventricular hypoplasia, ventricular septal defect, atrial septal defect. After birth, surgery was performed: pulmonary systemic shunt, arterial duct ligation and pulmonary artery banding, and at the age of one year, partial cavo-pulmonary anastomosis - Glenn procedure. The patient was examined with MRI and CT where thrombosis of the left and right middle cerebral arteries were discovered. Looking for genetic risk factors for thrombophilia, the positive result (homozygous mutations MTHFR A1298C, PAI-1 5G / 5G) confirmed the diagnosis. **Results:** The neurological symptoms were slowly improved after treatment, the patient maintaining a right spastic hemiparesis. **Conclusions:** Complex congenital heart malformation, which requires surgical therapy, in combination with thrombophilia, may be a major risk factor for stroke.

Keywords: Tricuspid atresia, thrombophilia, homozygous mutations

RICHTER'S SYNDROME: AN AGGRESSIVE TRANSFORMATION OF CHRONIC LYMPHOCYTIC LEUKAEMIA

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Background: Richter's syndrome (RS) is a particularly rare complication of chronic lymphocytic leukaemia (CLL). It represents the transformation of leukaemia into an aggressive diffuse large B cell lymphoma (DLBCL) or less often Hodgkin's lymphoma (HL). Its median time of occurrence is around 2 years after the diagnosis of CLL and the prognosis is unfavourable. **Objective:** The aim of this presentation is to highlight a possible complication of CLL which severely impairs the quality of life for the patient. **Material and methods:** We report the case of a 66 years old woman that presented in August 2018 with a tumor in the left mandibular region. The painful tumor presented infiltrative, ulcerative aspect and spontaneous bleeding. The patient was known with CLL stage 4 RAI since 2015. Biopsy from the mandibular tumor was performed and a diagnosis of DLBCL-RS CD20+ was reported. Recommended treatment with Rituximab, Cyclophosphamide, Doxorubicin Hydrochloride, Vincristine Sulfate, Prednisone (R-CHOP) regimen was immediately initiated. A considerable decrease in size was noted, but again increased after the second cure. **Results:** Review of the biopsy from August revealed positive CD138+ and CD30+ RS. Following this results, treatment was changed to HyperCVAD (hyperfractionated cyclophosphamide, vincristine, doxorubicin, and dexamethasone) chemotherapy in December 2018. During the following 2 months the tumor considerably decreased in volume. In February 2019 patient returned with an increase in size of the tumor and worsening of state of health. Despite chemotherapy, no other progress was noted. Radiotherapy scheme was recommended to start but in March patient died after 8 months from RS diagnosis. **Conclusions:** Chemotherapy treatment managed to keep our patient in the prognosis range of 8-10 months after RS diagnosis. However quality of life was significantly low considering the location of the tumor which impaired feeding and due to the numerous appointments for the chemotherapy.

Keywords: richter transformation, chronic lymphocytic leukaemia, complication

COLORECTAL CANCER - THE RACE FOR DIAGNOSIS

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Background: Colorectal cancer is the third most common form of cancer and the fourth most common cause of cancer-related death. The risk for colorectal is 4%-5% in general population and it is associated with specific environmental factors and genetical background. The presence of metastases is a frequently known complication in advanced stage colorectal cancer, especially liver metastases which occur more often. **Objective:** We present a case of an initially asymptomatic patient with non-specific symptoms connected to colorectal cancer, who was admitted accusing dyspeptic symptomatology. **Material and methods:** A 48-years-old male patient, with no previous significant pathological background, presented to our institution with unquantifiable weight loss, accusing postprandial abdominal pain and mild diarrhea without pathological content. The patient addresses the Emergency Room and is admitted for further examinations. The laboratory exams showed TGO=55,6 U/L, TGP=56,2 U/L and increased GGT (239.2 U/L). Abdominal ultrasound revealed multiple liver masses and thoracic-abdominal-pelvic CT have confirmed liver metastases, and an inhomogeneous mass located at the rectum level. On upper digestive endoscopy erythematous gastritis of the antrum was noticed. Furthermore, on the inferior digestive endoscopy, a friable, highly hemorrhagic, proliferative process was found and confirmed the previously CT discovered rectal tumor, which concludes the liver and lymphatic metastases. **Results:** After receiving symptomatic and additional treatments in order to correct electrolyte imbalance caused by dehydration, the patient's evolution was favorable and was referred to oncological evaluation. **Conclusions:** A colorectal cancer, can be easily overlooked and especially in patients with non-specific GI symptoms, further deep examinations are highly recommended to be performed, as the tumor and the metastases can develop silently, thus being the high cause of mortality even in newly diagnosed colorectal tumor patients, as the diagnosis is done in an advanced to terminal stage.

Keywords: colorectal, cancer, dyspeptic, metastases

PYOMYOSITIS - REPORT OF A PARTICULAR CASE

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Background: Pyomyositis is a rare purulent infection of the skeletal muscles, which usually occurs in people with underlying conditions, such as immunodeficiency, trauma, injection drug use a.o. It is classically described in tropical or temperate climates, most of the cases being described to people between 20 and 45 years old. **Objective:** This study aims to emphasize the rarity of a patient with pyomyositis without underlying comorbidities, with a known background of chronic heart disease. **Material and methods:** We report the case of a 68-year-old man known with a history of high blood pressure for 3 years under medication control, who presented to the Emergency Room for dry cough, dyspnea together with orthopnea, bilateral lower extremity edema, asthenia, 6 kg weight loss. The ECG showed atrial fibrillation with fast ventricular allure, indicating decompensated acute ventricular insufficiency. Echocardiography indicates severe hypokinesia of the interventricular septum and the anterior wall of the left ventricle, with a moderately depressed systolic function. One week later, the patient presents fever, diarrhea, pain at the following joints: scapulohumeral and metacarpophalangeal II, loss of appetite and nausea. The stool test reveals *Clostridium Difficile* infection and another week later, the patient presents motor aphasia, sleepiness, considering both of the following diagnoses: meningoencephalitis and acute encephalopathy. A thoracic CT indicates multiple abscesses involving the Trapezius, Deltoideus and Pectoralis Major Muscles. One month later, an episode of extreme bradycardia followed by asystole, was fatal. **Results:** The muscular abscesses were drained surgically and the bacteriological test indicated *Staphylococcus Aureus* MSSA infection. A pneumatological examination reveals left pulmonary atelectasis due to bronchial secretions. Moreover, the laboratory exam indicated hypoalbuminemia, caused by the lack of food intake. **Conclusions:** On the background of hypertension, complicated with an episode of decompensated acute heart failure, pyomyositis succeeds to catch our attention, regarding both its rarity and its lack of underlying conditions.

Keywords: Pyomyositis, Hypertension, Abscesses, Infection

INFECTED VARICOSE ULCERATION OF EQUINE LEG IN CIRCUMSTANCE OF INFERIOR VENA CAVA AGENESIS ASSOCIATED WITH THROMBOPHILIA

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Background: Among the anomalies of the inferior vena cava, one of the recognized entities is the congenital absence of the inferior vena cava (IVCA), which is a rare malformation (up to 1%). It may manifest as recurrent deep vein thrombosis (DVT) or it may be an incidental finding during an imagistic (US, MRI, CT) check-up.

Objective: The aim of our presentation is to underline the complexity of IVCA manifestations, comorbidities and complications. **Material and methods:** We report a case of a 31 years old male patient who has been referred to the internal medicine department for persistent pain located at the level of an extended varicose ulceration, with irregular shaped-edges, situated superior to medial malleolus, pretibial area, lower third of leg. He had a history of bilateral DVT, post-thrombotic syndrome, CEAP C6 limb venous insufficiency, mitral and tricuspid valve insufficiency, all diagnosed by age of 30. His treatment plan contained anticoagulant (antivitamin K) and pentoxifyllinum. He also associated a visible collateral varicose circulation on both legs and on the abdominal flanks, equine malformation of left leg, grade I obesity and mental impairment. Abdominal ultrasound was performed to provide information about the collateral circulation cause. Absence of the inferior vena cava was identified, confirmed by cross-sectional imaging (angioCT, MRI), excluding an intraabdominal thrombosis. Blood tests indicated thrombophilia (protein S and C deficiency). Microbiological samples were taken from the ulceration, confirming MRSA *Staphylococcus aureus* infection, which was further treated with proper antibiotics (ciprofloxacin). **Results:** The persistent ulceration was due to the venous stasis in presence of IVCA. Patients with IVCA develop collateral circulation that might be the cause of varices, with risk of thrombosis and favorizing cutaneous infections. **Conclusions:** IVCA is a rare syndrome with a polymorphic spectrum of manifestations. It is important to remember this diagnosis, administer life-long anticoagulation and search for possible complications.

Keywords: Infected ulcer, Inferior Vena Cava Agenesis, Thrombophilia, Cardiovascular Disease

MULTIDISCIPLINARY APPROACH IN A 12 YEARS BOY WITH FAP

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Background: Familial adenomatous polyposis (FAP) is characterized by the development of hundreds to thousands of adenomas in the rectum and colon. It is an autosomal dominant inherited condition in which polyps form in the epithelium of large intestine. **Objective:** The purpose of this paper is to present the case of an extremely young patient with FAP, the evolution of his disease and as well as the treatment he underwent. **Material and methods:** The patient is a 12 year old boy who was accidentally discovered with an iron deficiency (5,2 g/dL) and who had a very accelerated intestinal transit. The family history showed that his mother and brother underwent colectomies for FAP (they are both + for the mutation in the APC gene, responsible for FAP). He underwent a gastroscopy on 24/10 where many antro-fundic polyps were found and a few biopsies were taken (4 flat tubular adenomatous micropolyps in low grade dysplasia); a colonoscopy was also done that day showing more than 500 diffuse polyps and the biopsies showed at least 1 intra-mucosal ADK and 12 polyps in low grade dysplasia. The genetic analysis also showed he was APC+. **Results:** A multidisciplinary teamwork gathered and decided that a colectomy is necessary to be done, trying to preserve his rectum (the rectoscopy showed 50 polyps, only 1 in high grade dysplasia). A laparoscopic colectomy through a Pfannestiel incision was performed, succeeding in preserving the rectum. The anathomopathological examination showed a total of 2705 polyps: 2606 tubular or tubulo-villous adenomas in low grade dysplasia, 94 in high grade dysplasia and 5 potential intra-mucosal adenocarcinoma. There were no signs of submucosal infiltration or lymph node invasion. **Conclusions:** The patient is doing well and it is necessary to undergo a rectoscopy every 3 months from now on, meeting both the gastroenterologist and the surgeon.

Keywords: FAP, polyps, colectomy

UNEXPECTED MYELODYSPLASTIC SYNDROME IN PATIENT WITH CHRONIC LYMPHOCYTIC LEUKEMIA IN REMMISSION

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Background: In 2015, the patient was diagnosed with chronic lymphocytic leukemia stage II, B (RAI, Binet staging of CLL) which has gone in partial remission with a six cycles FC treatment carried out in 2016, but eight months after finishing the therapy, she is identified with a normocytic anemia. In the autumn of 2018, patient's blood count revealed a severe pancytopenia. The low count plasma cells(10%) found in the bone marrow aspirate, high values of immunoglobulin G, kappa light chains and beta-2 microglobulin(over 4mg/L) in the absence of clear clinical symptoms lead us to conclusion of a monoclonal gammopathy of undetermined significance. **Objective:** The purpose of this case presentation is to raise awareness on the importance of screening patients for disease in hematological sphere with low profile symptomatology to none, but with slight changes in the blood count. The reason is the potential of an undiagnosed disorder that is a risk factor for its evolution in a malignant condition. **Material and methods:** In this clinical case we discuss a possible monoclonal B-cell lymphocytosis as a precursor to chronic lymphocytic leukemia and monoclonal gammopathy of undetermined significance as a precursor to myelodysplastic syndrome. The data for these theories is based on important population-based studies. In the presented case report we will follow the patient's clinical history of an abnormally fast sequenced series of diseases. **Results:** The immunohistochemistry test and microscopical examination of the bone marrow obtained through trephine biopsy coupled with the blood findings diagnosed the patient with myelodysplastic syndrome, a refractory anemia with excess blasts 2. **Conclusions:** The reader is given a better understanding of the classification, progression and predictors of these diseases, even though there are no reliable markers showing the potential risk of development for individual patients, but large scale genomic methods are being applied to many types of cancers to solve this issue.

Keywords: hematology, immunology, leukemia, myelodysplastic syndrome

THE IMPACT OF STIGMA ON THE RECOVERY OF SCHIZOPHRENIC PATIENTS

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Background: Schizophrenia is one of the most feared diagnosis in psychiatry, mostly due to the misunderstanding of this disease. People with schizophrenia have to confront not only temporary alteration of their reality, but also the permanent hostile attitude of the society. Stigma decreases their chances of continuing a qualitative life. **Objective:** We aimed to emphasize the negative impact of stigma on the recovery of a patient with herpes virus induced schizophrenia. **Material and methods:** We present the case of 30-year-old male patient diagnosed with herpes virus infection with schizophrenic-like symptomatology from 2011. Despite medical treatment, residual symptoms persisted, the patient presenting feelings of uselessness, followed by social withdrawal. Although he has completed his university studies, due to stigma and low self-esteem the patient became socially dysfunctional. We measured the impact of stigma by applying a questionnaire (Maristan Scale). The scale has 31 items following four directives: informal social networks, social-institutional, health professionals and self-stigma, each of them having a measurable score to be interpreted. **Results:** The score of the scale demonstrated the presence of stigma in all four areas. The highest score was represented by self-stigma which reflects the increased internalization of public stigma. The patient experienced a high level of socio-institutional stigma due to the lack of reintegration and employments issues. Social network score was average with the family's support. Regarding stigma in medical services, the score was lower which shows that the level of stigma depends on information about this disease and on professional training. **Conclusions:** Stigmatization may be considered a modifiable environmental factor for recovery and persistence of symptoms. A higher level of stigma is correlated with lower quality of life, therefore a better understanding reduces the negative effects on patients' rehabilitation.

Keywords: schizophrenia, stigma, reintegration, Maristan-Scale

MONOCLONAL GAMMOPATHY OF UNDETERMINED SIGNIFICANCE IN PRIMARY SJOGREN SYNDROME

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Background: Sjögren syndrome is an autoimmune disease characterised by sicca syndrome and systemic extraglandular manifestations. Monoclonal gammopathies and lymphoma have been reported as subsequent complications of Sjogren syndrome, monoclonal gammopathy being detected in 22% of patients with primary Sjögren syndrome. Monoclonal gammopathy of undetermined significance (MGUS) has an annual risk of 1% of developing multiple myeloma (MM), with the non-IgG isotype presenting the highest risk for MM. Nevertheless, the presence of MGUS has been validated as a principal marker of disease activity in Sjogren Syndrome. **Objective:** We aim to present the case of a 65-year-old female patient with primary Sjogren syndrome with poor response to immunosuppressive therapy and with subsequent development of monoclonal gammopathy of undetermined significance. **Material and methods:** The following laboratory and imagistic investigations were performed: anti-Ro/SSA antibodies, anti-La/SSB antibodies, antinuclear antibody, complement C3 and C4 levels, rheumatoid factor, serum IgG, serum immunoelectrophoresis, ESR, C reactive protein, complete blood count, aspartate aminotransferase, alanine aminotransferase, alkaline phosphatase, creatinine, urinalysis, bone marrow aspirate, anti hepatitis C antibody, chest X-Ray, ECG, cardiac ultrasound. European SS Activity Score (ESSDAI) was used for disease activity assessment. **Results:** Our patient presented a high disease activity score (ESSDAI=22), decreased C3 and C4, increased anti SSA and SSB antibodies, increased rheumatoid factor and inflammatory markers together with laboratory evidence for MGUS, IgG isotype. **Conclusions:** Early control of disease activity in Sjogren syndrome can decrease the possibility of monoclonal gammopathy development. Nevertheless, an active disease with poor response to therapy might raise the suspicion of MGUS or other monoclonal B-cell subpopulation associated with a risk for hematological malignancy.

Keywords: Primary Sjogren Syndrome, Monoclonal gammopathy of undetermined significance, Multiple myeloma

PSYCHOLOGICAL STRESS A LONG-FORGOTTEN RISK FACTOR FOR ACUTE MYOCARDIAL INFARCTION

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Background: Growing evidence emerging from epidemiological and clinical studies sustain chronic psychosocial stressors as independent contributors to the risk of coronary artery disease even after statistical control for the effects of conventional risk factors. **Objective:** We aim to present the case of a 52-year-old patient presenting no conventional cardiovascular risk factor in which stressful life events seems to be associated with the occurrence of an acute myocardial infarction. **Material and methods:** The patient was transferred from a county hospital with prolonged constrictive anterior chest pain associated with dyspnea started in the day of admission. During anamnesis it has been found that the patient was exposed to chronic psychosocial stress factors consisting in stress at work and in family life, lack of social support, with a low socioeconomic status. ECG revealed ST segment depression of 1 mm in DI, aVL, V5-V6 leads. Positive high-sensitive cardiac troponin levels were identified (hs-cTnI 1341 ng/l). Echocardiography revealed mild hypokinesia of the lateral left ventricular wall. Coronary angiography performed showed single-vessel CAD with 80% critical stenosis located in the first obtuse marginal artery. **Results:** Successful percutaneous coronary intervention (PCI) with bare metal stent (BMS) implantation was accomplished on obtuse marginal artery with full clinical recovery of the patient. **Conclusions:** The particularity of our case is represented by the chronic exposure to psychosocial stressor involvement in acute myocardial infarction development in a patient presenting no other common cardiovascular risk factors.

Keywords: acute myocardial infarction, cardiovascular risk factors, psychological stress

A HEART FULL OF SHADOWS: TRICUSPID ENDOCARDITIS OR SUPERIOR VENA CAVA THROMBOSIS?

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Background: Thrombosis is a rare, but serious, potentially life threatening complication of the ventriculoatrial shunts, which can be cured if appropriately treated with the strict adherence to advanced guidelines. **Objective:** In this paper, a case with ventriculoatrial shunt related thrombosis was presented and management of the ventriculoatrial shunt related cardiovascular complications were discussed. We report the case of a 38-year-old patient with history of subarachnoid hemorrhage and subsequent hydrocephalus, resulted from traumatic brain injury, for which a shunt between left lateral cerebral ventricle and right atrium of the heart has been placed. The patient presented to the hospital with progressive resting dyspnea, chest pain and intermittent fever. **Material and methods:** The initial transthoracic echocardiography revealed a highly mobile mass in the right atrium, without being able to specify the exact place of insertion. In addition, severe pulmonary hypertension and major tricuspid regurgitation were observed. The computed tomography revealed bilateral pulmonary embolism with areas of pulmonary infarction. The clinical features and the echocardiographic aspects suggested a possible tricuspid valve infective endocarditis, therefore a transesophageal echocardiography was necessary. **Results:** Transesophageal echocardiography evaluation showed the presence of a ~ 40 mm pangliform mass originating from the inter-atrial septum, near the superior vena cava opening in the right atrium, without any link with the tricuspid valve. This suggested the valid diagnosis of superior vena cava thrombosis associated with the ventriculoatrial shunt. The heart team in collaboration with neurosurgeons decided to administer heparin, given the coexistence of pulmonary embolism and the intra-cavitary mass with high emboligenic potential, with good clinical and biological evolution. The association between normotensive hydrocephalus and pulmonary embolism secondary to intra-shunt thrombosis is a rare clinical entity. **Conclusions:** Patients with ventriculoatrial shunts represent a unique group at risk for thrombosis. However, these life threatening complications can be preventable and treatable. Therefore, reasons, complications, and outcomes should be clearly stated.

Keywords: thrombosis, ventriculoatrialshunt, shuntcomplication

MASS MEDIA'S INFLUENCE IN THE CONSUMPTION OF PROBIOTICS IN ASSOCIATIONS WITH ANTIBIOTICS

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Background: There is no doubt that probiotics proved their efficiency in the intestinal inflammatory disease, as an adjuvant in the treatment of vaginal infections, an important role in the immunity. The direct marketing of medical products to the consumer has grown rapidly and is now helping to be one of the most important types of communication between the public and the health system. **Objective:** to evaluate how many patients associate the antibiotic treatment with the probiotic treatment, who counsels them to make this choice, and if the mass media through TV ads, radio, and the internet has an influence over these decisions. **Material and methods:** We led a cross-sectional study from January to February 2020 based on an online questionnaire with 27 questions for 808 persons between the ages of 15 and 67 years old. We used the "chi-squared" tests in which a value of p lower than 0.05 has statistical significance. For statistical analysis I used SPSS, version 22, Chicago, IL, USA. **Results:** 82% of women, 12% of men; 64.4% from all of the people in the study used antibiotics in the last year. Out of the 64%, who used the antibiotics, 72% of them used probiotics with a significant P value of 0.0001. The relationship between the ones who used the probiotics and those who saw a TV ad about probiotics proved to be significant with a P Value of 0.0001. Eubiotic and Linex represents 77.3% of the most frequently seen TV ads. For the question who advised them towards this association: personal doctor 55%, mass media 2.3%. **Conclusions:** The study shows that most of the probiotics patients take are prescribed by the doctor, but there is a slight influence of the media in self-medication.

Keywords: probiotics, antibiotics, mass-media, immunity

NEONATAL SEPSIS - CLINICAL AND THERAPEUTIC ASPECTS

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Background: Neonatal sepsis is defined as a severe bloodstream infection, occurring in the first month of life. Globally, 3 million cases of neonatal sepsis are estimated annually, mortality ranging between 11-19%, which makes it the third cause of neonatal mortality. **Objective:** The aim of this study was to analyse the risk factors, clinical and therapeutic aspects of this condition. **Material and methods:** We performed a retrospective study involving neonates from the Neonatology Department of Targu-Mures County Hospital, admitted during Jan 2018-Dec 2019. Inclusion criteria: neonates diagnosed with sepsis. Exclusion criteria: neonates with congenital malformations and genetic disorders. We collected the clinical, laboratory findings and the treatment data from the inpatient and outpatient care registers. **Results:** 36 neonates were enrolled in this study. 50% of the pregnancies were not medically followed. Sepsis was more frequent in the preterm neonates group-69% (n=25) than in term neonates-31% (n=11). Early-onset sepsis was diagnosed in 21 patients (58%) and late-onset in 15 patients (42%). Sepsis was culture-proven in 83% of the patients, the microbiological findings identified Gram-positive bacteria in 14 patients (39%) and Gram-negative bacteria in 16 patients (44%). Respiratory distress syndrome was found in 69% of the patients, 55% of them requiring respiratory support (oxygen therapy-14%, non-invasive ventilation-22%, mechanical ventilation-19%). All patients received antibiotic therapy, initially Ampiciline and Amikacin. In 61% of the patients, antibiotic regime was changed according to the antibiogram. The patients accounted for a total of 799 days of follow-up, ranging between 1 to 61 days, with a mean of 22 days/patient. Mortality rate was 11.11%. **Conclusions:** The neonatal sepsis represents a global burden, taking into consideration its requirements for extensive follow-up days, its high morbidity and mortality rates. The prognosis for these patients depends on prompt diagnosis and correct treatment.

Keywords: neonatal sepsis, neonatal mortality, antibiotic therapy

ANTIBIOTIC TREATMENT IN INFANT PATIENT: PARENTS KNOWLEDGE, UNDERSTANDING AND OPINION ON THE PHENOMENON

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Background: Parents play a very important role in children's medication, a major issue is the inappropriate, unconscious or excessive use of antibiotics, as well as a lack of awareness of the real size of the problem that antimicrobial resistance can generate. **Objective:** The purpose of this paper is to determine the perception, knowledge and opinion of parents about antibiotic use among children as well as to find what parents think about antimicrobial resistance and another threats of antibiotic therapy. **Material and methods:** A cross-sectional study was performed using a questionnaire consisting of 31 questions, which was administrated through an online form or in the form of a printed questionnaire. Statistical analysis was performed using SPSS, version 22, Chicago, IL, USA. Statistical significance was established against a threshold value $p=0,05$, below this threshold we had significant relations. **Results:** In total, 825 people completed the questionnaire. The majority of the respondents are female, 771 (93.5%) compared to only 54 (6.5%) male. Most have graduated university (57.2%), a lower percentage, 40.8%, have graduated high school or junior college, and a small percentage of 1.9% have graduated only general school. 88.6% of participants denied that anti-inflammatories, anti-emetics and antibiotics are drugs of similar classes. 640 (77.6%) of all parents are used to store antibiotics at home, while 185 (22.4%) are not. 10.4% of all parents gave antibiotics for viral infections and 22.4% of the participants saying that they would have spare stocks with antibiotic medication. **Conclusions:** The results confirm the fact that romanians start in large numbers to document and ask for the doctor's advice. There is still a difficulty in differentiating bacteria and viruses, as well as viral pathologies being diagnosed by some parents as bacterial.

Keywords: antibiotics, antimicrobial resistance, bacteria

EPILOIC APPENDAGITIS, A RARE CAUSE OF ABDOMINAL PAIN

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Background: Epiploic appendagitis is a rare, self-limiting disease characterized by an inflammation of epiploic appendices. **Objective:** Our aim is to highlight the clinical-pathological features of this disease. **Material and methods:** We report the case of a 48-year-old male, without important comorbidities, presented to the emergency department of Emergency Country Hospital from Targu Mures with constant, localized, strong, nonmigratory pain in the left iliac fossa that started three days before presentation. The patient denied any trauma to the area, vomiting, dysuria, haematuria, changes in bowel habits or loss of weight. Clinical examination revealed sweaty skin and abdominal pain with VAS (visual analogue pain scale) score of 8/10. Laboratory tests showed White Blood Cell (WBC) count of 10,61 μl ($3.6-10 \times 1000/\mu\text{l}$), with neutrophilia 7,39 μl ($1,4-6,5 \times 1000/\mu\text{l}$) without other changes. Abdominal CT with contrast was performed and described the pathognomonic image of the epiploic appendagitis. Surgical examination was requested that excluded the acute surgical abdomen. **Results:** The patient was admitted to the Gastroenterology Clinic No. I for conservative treatment and surveillance. He was hospitalized for 3 days and had oral treatment with Metronidazole 3x500 mg/day, alfa-Rifaximin 200 mg 3x2/day and metil-Prednisolone 250mg/day. **Conclusions:** Unlike its mimics, such as appendicitis or diverticulitis, epiploic appendagitis is, generally, a self-limiting disease and is conservatively treated. Currently, with the increasing use of US and CT in the evaluation of acute abdominal pain, epiploic appendagitis can be diagnosed by characteristic diagnostic imaging features. For these reasons, the knowledge of epiploic appendagitis as a cause for abdominal pain and its imaging features may avoid a delay in diagnosis and surgical intervention.

Keywords: appendagitis, abdominal pain, Abdominal CT

SLEEP-WAKE DISTURBANCES FOR PATIENTS WITH DEMENTIA

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Background: Alzheimer disease (AD) is the most common neurodegenerative brain disease that causes cognitive impairment in the elderly. Behavioral and psychological symptoms of dementia (BPSD), also known as neuropsychiatric symptoms, represent a heterogeneous group of non-cognitive symptoms and behaviors for AD patients. **Objective:** The primary endpoint of this study was the diagnosis of dementia, a certain phenomenon, that has increasingly grown at national and international level. Moreover, the early diagnosis of dementia and sleep diseases in conformity with depression and anxiety **Material and methods:** Sleep disorder is one closely-related psychiatric symptom of AD. We aimed to investigate the characteristics of sleep status and BPSD among AD patients in Targu Mures, assessing the relationship among sleep disorder, BPSD, and cognition. Using a descriptive-analytical study, it analysed the correlation between patients with dementia and sleep-wake disorders. We included 30 patients who were diagnosed with dementia and insomnia from a shelter for elderly persons from Targu Mures, through the evaluation of the theme through a quiz realised in April 2020 and measured these results against a similar study conducted in 2018. We used Pittsburgh sleep quality index (PSQI) and orth sleepiness scale were designed to assess the sleep status and daytime naps. Also, we use Microsoft Excel for data processing. **Results:** Significant mean differences presented in both PSQI scores and ESS scores ($P < .05$) Total PSQI score and PSQI components scores in AD patients were significant. Showed that disturbed sleep patterns with highest incidences were nighttime sleep disturbances (73.5%), habitual sleep efficiency (61.3%), subjective sleep quality (56.7%), and daytime dysfunction (53.4%). **Conclusions:** This study definitively answers the question regarding in the field have shown that AD patients are more likely to present sleep disorders and sleep. As known, sleep disorders can affect cognition of AD patients and they can increase apathy and in the worst cases, depression.

Keywords: Alzheimer, dementia, sleep-wake

THE COMPLETENESS AND ACCURACY OF ONLINE INFORMATION ABOUT APHASIA IN ROMANIAN, HUNGARIAN, ENGLISH AND SPANISH LANGUAGES

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Background: The internet has become the first source of information for patients and also one of the main sources for medical doctors. When exposed to incomplete or inaccurate health-related information, unaware users may be at risk by following useless or harmful treatment recommendations. **Objective:** The primary aim of the study was to assess the completeness and accuracy of the information about aphasia on the English, Spanish, Romanian, and Hungarian websites. Additionally, we investigated whether the webpages in English language provided higher quality content compared to webpages in the other three languages. **Material and methods:** This observational, cross-sectional study included 25 websites for each language. The completeness and accuracy of each website were rated by two independent evaluators using a common set of criteria and instructions, developed with the contribution of local and international experts. Mean quality scores were calculated and reported on a scale ranging from 0 to 10. The obtained scores were compared by using the Student's t-test or Mann-Whitney test. The significance threshold was set to 0.05. **Results:** The mean completeness score was 4.4 (SD 1.4) for English websites, 4.2 (SD 1.0) for Spanish websites, 3.9 (SD 1.3) for Romanian website, and 3.8 (SD 1.4) for Hungarian websites, with no statistically significant differences between English and the other languages. The mean accuracy score was 9.2 (SD 0.8) for English websites, 8.6 (SD 1.0) for Spanish websites, 8.2 (SD 1.1) for Romanian websites, and 6.6 (SD 1.2) for Hungarian websites. English websites had significantly higher accuracy scores than Spanish ($p=0.014$), Romanian ($p=0.0007$), and Hungarian ($p<0.0001$) websites. **Conclusions:** Overall, the level of completeness of aphasia-related websites was low while the level of accuracy was relatively higher. The study suggests that using English language websites as a source of information regarding aphasia may offer access to more accurate information.

Keywords: quality of health-related information, aphasia, completeness, accuracy

PAEDIATRIC MORTALITY. CAUSES, COMORBIDITIES AND GENERAL INFORMATION.

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Background: Mortality rates among children are not only key indicators for child well-being, but, also provides information about health system, social, and economic performances. Despite the progress over the past two decades, newborns, children, and young adolescents die every year, mostly of preventable or treatable causes, such as respiratory pathologies and infectious diseases. **Objective:** This study intends to identify the causes of child mortality and comorbidities by taking into consideration both their origin and social-economic background. **Material and methods:** We conducted a retrospective study in 106 paediatric deaths cases with age ranges between 0 to 18 years at the Pediatric Clinic I, Târgu Mureş during a period of five years, 2014 - 2018. The percentages were calculated by using the Microsoft Excel program. **Results:** The highest rate of death cases per year was 1.48% in 2015, and the lowest 0.78% in 2017. In 2014, 2016 and 2018 there were 1.22%, 1.29%, respectively 0.95%. The most common causes of death were pneumonia/ bronchopneumonia and sepsis/ septic shock, with an incidence of 25%. Concerning comorbidities congenital pathologies were especially high, the most common cases were cardiovascular malformations, in a proportion of 18.2%. Other commonly occurring congenital pathologies were malformations of the nervous-, osteoarticular- and muscular system. The ratio of rural: urban origin during the studied period was 62%: 38%; 47% of death cases had a precarious social and economic background, 80% of them had at least one hospitalization in their medical history. **Conclusions:** Despite the fact that there is a fluctuation regarding the incidence of paediatric death cases per year, we can observe a decreasing tendency. Respiratory and infectious pathology were the most common causes of death, and congenital cardiovascular malformations were the most common comorbidities. Most of these paediatric cases came from rural areas, many of them having poor social and economic background.

Keywords: child mortality, quality of health services, comorbidities

THE ROLE OF COMPUTED TOMOGRAPHY IMAGING IN THE INITIAL EVALUATION OF STROKE – PRELIMINARY STUDY

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Background: A stroke is an onset of neurological deficit due to decreased blood supply of the brain. For the diagnosis and management of patients with acute stroke, a CT scan is the simplest and most readily available technique. The goal of initial imaging evaluation is to exclude hemorrhage, differentiate between reversible and irreversible affected brain tissue and to recognize if the cause is a stenosis or occlusion of major arteries. **Objective:** Our study aims to highlight the importance of advance radiological studies such as CT in the diagnosis of stroke in patients with recent neurologic deficit. **Material and methods:** Our retrospective observational study consisted of CT investigations ran during February 2020 on 40 patients with neurological deficit. CT evaluations were performed using a 64-slice device to analyze the presence of hyperdensities indicating hemorrhage or signs of an ischemic lesion such as hypodensity, mass effect with narrowing of the fissures and sulci. Contrast was administrated in patients with ischemic lesions in order to identify the location of the occlusion and perfusion protocol was applied to detect ischemic penumbra. **Results:** Patients were predominantly males with a mean age of 64. Throughout the study ischemic stroke was prevalent (72,5%). Regarding risk factors, ischemic stroke was significantly associated with dyslipidemia and high blood pressure. CT evaluation depicted that ischemic strokes were mostly located in MCA territory, while hemorrhage was at the level of the cerebral parenchyma. Additionally, we observed that motor deficits in ischemic stroke were significantly associated with the visualization of hypodensities. **Conclusions:** CT scans represent the initial study in stroke patient in order to rule out hemorrhage which is crucial in choosing treatment. In ischemic stroke it can also identify the potential areas of reversible and salvageable brain tissue. The ratio of ischemic stroke and lesion location in relation to demographics resembles the data presented in the literature.

Keywords: Stroke, CT, Brain Tissue

CHILD DRUG INTOXICATION: PREVALENCE AND RISK FACTORS

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Background: Drug ingestion and intoxication in children are a pediatric emergency. The negligence of parents, the storage of medicinal products in easily accessible places, associated with the children's curiosity are the main causes of drug intoxication in young children. Emotional lability and social problems push teenagers into suicidal drug ingestion. **Objective:** Highlighting the risk factors involved in drug ingestion in children under age and follow up some special notes on the subject (frequency by age group, sex, circumstances). **Material and methods:** Retrospective analysis of clinical observation sheets of patients diagnosed with drug intoxication in Pediatric Clinic I, Tîrgu Mureş during 2014-2018, including 199 cases of drug ingestion on patients between the age of 0-18. Microsoft Excel program was used to calculate percentages. **Results:** From 2014 to 2018, 199 cases were recorded with the diagnosis of ingestion of various medicinal substances. Of all children with medication poisoning, 68,3% (136 cases) were females. In terms of the circumstances in which they occurred, most drug ingestion was voluntary (52,8%) .The highest case frequency was recorded in the age group 11-18 (54,8%), and lowest in age group 6-10 (5%).The distribution according to their origin : 118 children from rural areas (59,3%), 81 from urban environment (40,7%) . Parental negligence is the main cause of these unfortunate events in young children, while social problems push teenagers to suicidal attempts. **Conclusions:** The study shows that drug ingestion occurs more frequently in minors aged 11 to 18, with females and people from rural areas more likely to be more prone to these unfortunate events .

Keywords: Drug poisoning, ingestion, pediatric

VISITING - THE CONSEQUENCE OF FAMILY VISIT OVER THE MENTAL STATE OF THE INFIRMARY PATIENT

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Background: The mental state of the infirmary patient has the same value as the physical state. Everybody knows that a strong mental state presses the recuperation. The presence of family during a patient recovery has a major importance in having a strong mental state. **Objective:** The consequence of family visit for the infirmary patient regarding his mental state. All is based on the idea that the family is a main part in maintaining a healthy state. **Material and methods:** The realize this study I applied as psychological investigation a questionnaire which contains 13 items. This questionnaire was applied on a number of 70 infirmary patients between the ages of 21 and 86 years from surgery, internal medicine and gynecology department. **Results:** The subjects of the questionnaire are: 54,28% females and 45,71% males, 61,42% from country side and 38,57 from urban environment. Based on the answers of the questionnaire 68,57% of the patients prefer not to be alone in the hospital ward and 30% of them declare that their room mates influence their mental state. 85,71% of the subjects need their family to visit them. 45,71% of the hospitalized patients wish to receive home food and 18,57% of them would be pleased to receive flowers. **Conclusions:** As a conclusion I noted that the mental state is very important when we talk about the physical health of an infirmary patient. From the 70 subjects of the questionnaire, 37 are hospitalized at the internal medicine department, 23 at surgery department and 10 at gynecology department. Generally the subjects wish their family to visit them and also prefer to have presence in the hospital ward.

Keywords: visit, family, infirmary patient

THE CONTRIBUTION OF ULTRASOUND IN THE DIAGNOSIS OF ABDOMINAL MASSES IN CHILDREN - CASE PRESENTATIONS

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Background: Abdominal masses of infants and children may be caused by congenital anomalies, tumors, trauma

or infections. An ultrasound examination should be performed early during the workup because it can quickly and accurately identify the location of the mass, the organ with which it is associated, and whether it is cystic or solid.

Objective: Abdominal ultrasonography is an instrument of major importance in medical practice, being viewed today as an extension of the clinical examination. Because it is a non-invasive imaging investigation, which does not involve radiation, is easy to perform, repeatable and painless, has no contraindications or significant costs, it occupies an important place in the algorithm for diagnosing abdominal masses in children. **Material and methods:** The authors present 6 cases of abdominal tumors found through ultrasonography in children and their correlation with more or less suggestive clinical manifestations. **Results:** The case presentations begin with clinical symptoms, supplemented by imaging examinations, with abdominal ultrasonography being the first choice. We present 4 cases of malignancies and 3 cases of benign masses, in patients of different ages, from infant to adolescent. We focused on the correlations between the ultrasonographic results and those obtained by analysis, radiography, CT or MRI. **Conclusions:** Abdominal ultrasonography is the first choice for diagnosing abdominal tumors in children, malignant or benign, but must be supplemented with CT or MRI for a more accurate diagnosis. Finally, the histopathological examination is the one that remains the gold standard in the final diagnosis of tumors.

Keywords: children, abdominal masses, ultrasonography, tumors

THE PREVALENCE OF DEPRESSION IN PATIENTS DIAGNOSED WITH ARTERIAL HYPERTENSION

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Background: Depression and high blood pressure are two major problems of public health worldwide and represent, also, severe causes of mortality. Both can be induced by each other, contributing significantly to a lower quality of life when it comes to patients. **Objective:** We aim to investigate the prevalence of undiagnosed depression among patients hospitalized in the Internal Medicine unit, compared to patients registered in Family Medicine Practice. **Material and methods:** This study included a sample of 105 hypertensive patients hospitalized in the Internal medicine unit and 105 patients registered in the Family Medicine practice during November 2019-March 2020. We evaluate depression, using the Patient Health Questionnaire (PHQ-9). Data on possible risk factors such as sex, age, chronic diseases, medical treatments were collected from patients medical records. **Results:** Out of 105 hospitalized patients, 55 (52,38%) were females and 50 (47,61%) were males. 64 (60,95%) had depression, of which 33 (51,56%) registered mild depression 17 (26,56%) moderate depression, 12 (18,75%) moderately severe depression and 2 (3,12%) had severe depression. Out of 105 patients registered in Family Medicine practice, 62 (59,04%) were females, and 43 (40,95%) were males. 45 (42,85%) had depression, of which 36 (80%) mild depression, 8 (17,77%) had moderate depression, 1 (2,22%) had moderate, severe depression and there were none severe cases. **Conclusions:** The study reveals that most of the patients are undiagnosed with depression. This disease tends to affect more frequently hospitalized patients rather than patients from the Family Medicine Healthcare.

Keywords: depression, arterial hypertension, PHQ-9

CLINICAL-IMAGING ASPECTS WITHIN THE PORTAL HYPERTENSION

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Background: Portal hypertension is a clinical syndrome characterized by an increase in the hepatic venous pressure gradient above 5 mmHg. The clinical significance of HTP syndrome is defined by the frequency and severity of its complications, including variceal hemorrhage, ascites, spontaneous bacterial peritonitis and hepatorenal syndrome, which are the leading causes of death in patients with cirrhosis of the liver. **Objective:** The aim of this study is to identify the clinical-imaging features of HTP syndrome and to determine the prevalence of the syndrome in the patients diagnosed with liver cirrhosis admitted to the Internal Medical Department. **Material and methods:** We conducted a retrospective longitudinal study including 101 patients with liver cirrhosis admitted in the Internal Medical Department at County Emergency Clinical Hospital of Târgu-Mureş from January 2018 to December 2019. **Results:** Out of the total number of patients, 67% belong to males and 33% to females; patients comes equally from both urban and rural areas; 1% were between 20-29 years old, 9% between 40-49 years old,

23% between 50-59 years old, 36% between 60-69 years old, 25% between 70-79 years old and 3% between 80-89 years old. Clinically, 60% of patients have complications related to HTP syndrome and imaging 59% associate a change in liver structure at abdominal ultrasound. **Conclusions:** Liver cirrhosis represents the final stage of chronic liver disease with a predominance in males in the age range 60-69 years old. Portal hypertension is a major pathophysiological process in liver cirrhosis.

Keywords: HTP, liver cirrhosis, men

DRUG ALLERGIES IN CURRENT MEDICAL PRACTICE

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Background: Drug allergies are an abnormal reaction of the immune system to a particular drug. The most common form of their clinical manifestation is non-severe rash, but wheezing and complex syndromes, such as Stevens-Johnson syndrome(SJS), toxic epidermal necrolysis(TEN), can also occur. **Objective:** We analyzed the prevalence of drug allergies on the patients that are admitted in an Internal Medical Department(emergency/scheduled consultation), the categories of drugs frequently involved in the occurrence of these allergies, the distribution by decades of age, gender and also the medical history(other associated diseases) and the percentage of patients who have allergic reactions to a single drug category or to several drug categories.

Material and methods: This was a retrospective-longitudinal study performed on a batch of 76 patients admitted in the Internal Medicine Department at County Emergency Clinical Hospital of Târgu-Mureş from January 2018 until December 2019. **Results:** Of all the patients, 72.37% were women and 27.63% were men; the decade with the most common drug allergies is decade 8(30.67%), followed by decade 7(25.33%). 12.35% of the patients were in the Emergency Department and 87.65% were admitted to the Internal Medicine Department by appointment. Of all the categories of drugs, the most often involved in the onset of allergies are antibiotics(74.05%), followed by NSAIDs(32.89%), analgesics(15.79%), antihypertensive(9.21%) and other categories(27.63%). 75% have hypertension, 73.68% other cardiovascular diseases, 35.53% diabetes, 60.53% gastrointestinal diseases and 66.67% patients have allergic reactions to a single drug categories and 33.33% to several drug categories.

Conclusions: The result of the study reveals that drug allergies especially affect women(72.37%) and patients in decade 8(30.67%). After analyzing the data we noticed that 12.35% of the patients were admitted in emergency, the main category of drugs involved in the onset of allergic reactions are antibiotics(74.05%), most of the patients have hypertension(75%) and other cardiovascular diseases(73.68%) and 33.33% have multidrug allergy.

Keywords: drug allergies, women, antibiotics

EVALUATION OF VOLEMIC OVERLOAD FOR PATIENTS WITH HEART FAILURE THROUGH CHEST ULTRASOUND EXAMINATION

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Background: In patients with heart failure,pulmonary congestion is a common pathophysiological finding,mainly due to diminished left ventricular function and valvular disease.The cause of congestion and related symptoms is the extravascular fluid retention in the lungs,which can be best tested using lung ultrasound for both diagnosis and follow-up,as it is an easy-to-learn,cost-effective,repeatable, radiation-free investigation that can be used to visualize the accumulation of extravascular fluid in the form of so-called B-lines. **Objective:** The aim of our study is to investigate the usefulness of chest ultrasound and to assess the extent of pulmonary congestion before and after the volume overload and to determine the predictive value of the test in patients with heart failure. **Material and methods:** In our study we included 20 patients diagnosed with acute heart failure. Pulmonary ultrasound was performed for the determination of Kerley B lines,with Philips-Epiq7 machine using a standard cardiac transducer and 2D imaging on the day of hospital discharge, before and after volume overload(5 minutes, legs raised to 45°).This was followed by data collection on patients general condition, heart ultrasound,6MWT and Nt-proBNP level determinations.The data was processed in Excel spreadsheet and analyzed in IBM-SPSS-25 statistics program. **Results:** Among the examined patients, the gender distribution was:72% men and 28% women, mean age was 65,5±7,92 years.66,7% of the patients had NYHA class-III heart failure and 33,3% class-IV. 38,9% of them had peripheral edema and 55,6% audible rales.The mean 6MWT was 320 meters.Paired Samples T-test

showed $p=0,002$ value between anterior-chest-wall B-lines before and after volume overload, $P=0,001$ for posterior-chest-wall and $p=0,000$ for total B-lines. We found a weak positive correlation between the number of B-lines and Nt-proBNP levels ($r=0,37, p=0,1$). **Conclusions:** Diagnosis and monitoring of pulmonary congestion is essential for guiding therapeutic decisions because it may precede the development of left ventricular decompensation symptoms. With its early recognition and effective management, the patient's exacerbation or multiple hospitalization can be avoided.

Keywords: pulmonary congestion, lung ultrasound, Kerley B lines

AMBULATORY BLOOD PRESSURE MONITORING AND CARDIOVASCULAR RISK IN PATIENTS WITH CHRONIC KIDNEY DISEASE

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Background: Ambulatory blood pressure monitoring (ABPM) is useful for diagnosing hypertension and offers information about dipping status and BP variability associated with target-organ damage. The role of hypertension in the onset and progression of CKD has been acknowledged by international guidelines and treatment has become the most important intervention. **Objective:** The aim of our study is to analyze ABPM results and cardiovascular risk to hypertensive patients with CKD. **Material and methods:** Retrospective observational study of hypertensive patients recruited in a university hospital between November 2019 and February 2020. All patients have ambulatory BP monitoring for at least 24h. The patients were divided into two groups: hypertension with CKD and hypertension without CKD. Cardiovascular risk assessment was based on personal history, clinic BP values and target organ damage evaluation. **Results:** The study includes 132 hypertensive patients in routine clinical practice, with the mean age 68.21 ± 12.8 years and 46.21% were women. Patients had 39.39% obesity, 56.06% ischemic heart disease, 33.33% diabetes and 5.30% ischemic stroke. Within this population 57 patients (43.18%) were CKD, with high and very high cardiovascular risk. The hypertensive patients with CKD had mean SBP/DBP values were $127 \pm 19.99 / 61.17 \pm 11.46$ mmHg, daytime SBP/DBP was $130.66 \pm 20.43 / 70 \pm 12.09$ mmHg and nighttime SBP/DBP was $122.15 \pm 21 / 62.49 \pm 12.20$ mmHg. The hypertensive patients without CKD had mean SBP/DBP values were $117 \pm 20.84 / 68.51 \pm 13.45$ mmHg, daytime SBP/DBP was $120.21 \pm 22.78 / 71.21 \pm 15$ mmHg, and nighttime SBP/DBP was $112.60 \pm 20.62 / 64 \pm 13.21$ mmHg. Patients with CKD have more frequent uncontrolled hypertension according to 24-h ABPM criteria. (35.90% versus 64.10%, $p = 0.002$). In terms of dipping status, there were no statistically significant differences between the two groups. **Conclusions:** Risk factors and cardiovascular comorbidities was high in the population studied. The prevalence of uncontrolled hypertension according to 24-h ABPM criteria was higher in patients with CKD, no differences between the dipping status.

Keywords: arterial hypertension, chronic kidney disease, cardiovascular risk

PARTICULARITIES OF ETHANOL ABUSE IN YOUNG PATIENTS

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Background: From 2010 to 2012, the National Institute of Health has presented a worrying report regarding alcohol abuse among the young European population. For the age range of 15 to 29 year olds, one in ten females and 4 in 10 males, die from ethanol abuse. It is important to monitor the pattern, the evolution, and the structural personality disorders associated with the most widespread substance used for addictive purpose, alcohol. **Objective:** The objective of the study is to present the incidence of the ethanol abuse diagnosis among both males and females their demographic evaluation, and assessment of the particularities related to family medical history and psychiatric comorbidities. **Material and methods:** We performed a retrospective longitudinal study between January 2018 and December 2019, carried out in the Department of Psychiatry at Clinical County Hospital of Tîrgu Mureş. A total of 97 patients were eligible for the study. Descriptive statistics were used to summarize the study data. **Results:** 90% of all patients admitted for ethanol abuse were men. It is noteworthy that in the age range of 26 to 35 no women were admitted with this diagnosis. Only 6% were graduates of higher education. 82% had no hereditary history directly related to ethanolic toxic pathology. 29 patients had another diagnosis on axis 1, 58% of them suffered from major depressive episode with depressive affective disorder. Regarding the structure of the disharmonic personality, 63% of patients fall into the B cluster of personality. **Conclusions:** The

main characteristic of young alcoholics is the dominance of the male sex which usually does not present concern for studies. Importantly than heredocolateral history in ethanol abuse development are personality disorders , such as antisocial or borderline personality disorder, as well as triggers for trauma or depressive episodes.

Keywords: alcohol abuse, young, personality, depression

HEMOCROMATOSIS, AN UNDERDIAGNOSED DISEASE – CASE REPORT

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Background: Hemochromatosis is an iron metabolism disorder that may be inherited or acquired. The excess iron is stored in the body's tissues and organs, particularly the skin, heart, liver, pancreas, and joints. **Objective:** This case study aims to raise awareness of this disease and give information on hemochromatosis about clinical features, diagnosis, and treatment. **Material and methods:** A 52 years old male patient, was admitted to our department with a three-month history of pain in the right hypochondrium, left gonalgia and pain in the small joints of the hands. His medical history revealed mixed anxiety-depressive disorder (2018) and a diagnosis of arthritis (2016), treated with non-steroidal anti-inflammatory drugs and chondroprotective nutrients, with no improvement in pain. No relevant family history and no history of anemia, excessive iron intake or blood transfusions. Physical examination: slightly enlarged liver. Biological findings: slightly elevated transaminases (ALT: 171U/L, AST: 91U/L), serum iron elevated (50.36 umol/L), serum ferritin (SF: 3872ng/mL) and transferrin iron saturation percentage (TS%: 96.7). HFE mutations not detected. Abdominal ultrasound: advanced hepatic steatosis. MRI: important reduction in signal intensity from the liver: hemochromatosis. Phlebotomies started weekly and a restricted diet for red meat, no raw shellfish and alcohol were made, with a massive decrease of the SF and TS%, with no reduction in Hgb value or MCV. But after a six week of fasting □ the period of The Great Lent, the patient was admitted with an SF of 10.472 ng/ml. **Results:** We started a more aggressive treatment with phlebotomies and with nutritional help, we made a more restrictive diet that helped the patient reach in four months normal values of serum ferritin. **Conclusions:** Hemochromatosis should be considered in the differential diagnosis when elevated levels of liver enzymes are associated with rheumatic symptoms. Symptoms of this disease can be unspecific and commonly encountered.

Keywords: Hemochromatosis, Arthropaty, Iron metabolism disorder

CLINICAL PROFILE AND MANAGEMENT OF PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION

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Background: Atrial fibrillation is the most common arrhythmia and a major risk factor for ischemic stroke. The prevalence of atrial fibrillation increases with age, the patients have many comorbidities and management of this population is challenging. Suboptimal anticoagulation and low treatment adherence are commonly seen in patients with atrial fibrillation. **Objective:** The aim of this study is to identify the clinical characteristics and management of the patients suffering from non-valvular atrial fibrillation. **Material and methods:** Retrospective observational study of nonvalvular atrial fibrillation patients that started between November 2019 and February 2020 in a university hospital. Was recorded: age, sex, body weight, cardiovascular risk factors (hypertension, diabetes), vascular conditions (ischemic heart disease, heart failure, ischemic stroke, peripheral artery disease, renal insufficiency), blood analysis and the type of oral anticoagulant. The thromboembolic risk was determined by the CHA2DS2-VASc scales and the risk of bleeding by the HAS-BLED scale. **Results:** A total of 124 patients with the mean age 69.66 ± 11.61 years; CHA2DS2-VASc: 4.44 ± 1.93 ; HAS-BLED: 2.53 ± 1.24 were included. We found 39.51% paroxysmal AF, 12.09% persistent AF and 48.38% permanent AF. Patients had 83.87% hypertension, 49.19% ischemic heart disease, 77.41% heart failure, 23.38% diabetes and 8.87% ischemic stroke. Within this population 74 patients (59.67%) were on acenocumarol, 49 patients (39.51%) were on new oral anticoagulation and one patient (0,08%) did not receive any oral anticoagulation treatment. **Conclusions:** The patients with nonvalvular atrial fibrillation have a high number of comorbidities and high thromboembolic risk. Vitamin K antagonists were the most common oral anticoagulant prescribed in the study population.

Keywords: atrial fibrillation, comorbidities, anticoagulant

CERVICAL CANCER : INCIDENCE OF MORTALITY IN MUREȘ COUNTY

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Background: Cervical cancer remains the leading incidence and mortality in developing countries. Unfortunately, Romania occupies the first place in Europe in terms of mortality and morbidity with an incidence of 3.308 new cases discovered annually according to the HPV Center. **Objective:** The aim of this study is to track the neoplastic evolution in both urban and rural areas. **Material and methods:** This is a retrospective study conducted over 5 years (2015-2019) including 54 patients aged between 21 and 75 years. The data were collected from the files of patients from S.C.J.U. Târgu Mureș, Oncology Clinic. The cases and the disease evolution were analyzed based on the environment of origin (rural-urban). **Results:** In the sample studied under treatment, 64.81% of the patients were from urban areas, 35.18% from rural areas. The latter are presented in more advanced evolutionary stages (stage IV: 28,57% rural, 9,09% urban). Regarding the evolution, 20 patients were monitored. The results show an 80% survival. Of these, 37.5% relapses were observed (6 patients of which only 1 survived). Counting both the deaths caused by initial disease and deaths caused by relapse, the case fatality rate of the study group in 45%. **Conclusions:** Many patients from rural areas have advanced forms of cancer and the risk factors are at much more higher level. The study highlights the need for better prevention and accessibility to health services, in particular due to the fact that patients in rural areas are at higher risk in terms of chances of survival.

Keywords: oncology, cervical cancer, evolution, prevention

BLOOD PRESSURE CONTROL IN HYPERTENSIVE PATIENTS, CARDIOVASCULAR RISK PROFILE AND THE PREVALENCE OF UNCONTROLLED HYPERTENSION

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Background: Hypertension is the most important modifiable risk factor for cardiovascular disease, but the control of hypertension remains poor. Studies show that less than 40% of hypertensive patients reach the target value of blood pressure (BP) and the rest is incompletely controlled or not controlled at all. **Objective:** The objective of our study is to evaluate the BP control in hypertensive patients, discover the patients with uncontrolled hypertension and establish their cardiovascular profile. **Material and methods:** This retrospective observational study included 135 patients with a diagnosis of hypertension and that have at least one 24-hour ambulatory blood pressure monitoring (ABPM). We identified patients with uncontrolled hypertension according to current international guidelines. The cardiovascular risk assessment was based on the general and anthropometric data, BP value, laboratory analyzes and target organ damage evaluation. **Results:** The mean age was 63.54±10.99 years, 48.14% were women and 51.85% were men. A percentage of 8.15% patients did not have antihypertensive drugs and most of them had two or three drugs. The mean clinic BP was 133.33±17.41/80.41±11.03 mmHg. The patients had mean SBP/DBP values 122.73±11.03/69.59±8.07 mmHg, daytime SBP/DBP values 125.93±13.66/72.67±8.67 mmHg and nighttime SBP/DBP values 117±15.07/64.15 ± 8.62 mmHg. Optimal BP control were identified to 49.62% patients. Uncontrolled hypertension was associated with smoking, obesity, diabetes mellitus and very high cardiovascular risk. The patients with uncontrolled hypertension had also a higher prevalence of comorbidities: myocardial infarction (17.9% versus 1.8%), stroke (10.4% versus 5.9%) and chronic renal disease (19.1% versus 7.5%). **Conclusions:** ABPM is needed to confirm proper BP control. Uncontrolled hypertension was associated with high cardiovascular risk and cardiovascular comorbidities

Keywords: hypertension, uncontrolled, ambulatory blood pressure monitoring, cardiovascular risk

CHRONIC URTICARIA IN CURRENT CLINICAL PRACTICE

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Background: Chronic urticaria represents a high-prevalence disease, estimated between 0.5-5% in general population, characterised by the appearance of pruriginous and erythematous papules or plaques with well-defined margins and a pale center, that last longer than 6 weeks. It is considered to affect up to 20% of the world population throughout life and to have a major impact on every-day life of these patients. **Objective:** The aim of this study is to determine the prevalence of the disease in men and women, their demographic evaluation, the distribution on decades of age and to determine the most common form of chronic urticaria amongst these patients. **Material and methods:** This was a retrospective longitudinal study on 43 patients admitted in the Internal Medicine Department at County Emergency Clinical Hospital of Tîrgu-Mureş from January of 2018 until December of 2019. **Results:** Of all the patients, 81% were women and 19% were men; 58% were from the urban area and 42% were from the rural area; 12% were between 20 and 29 years of age, 14% between 31 and 39, 21% between 41 and 49, 19% between 51 and 59, 25% between 61 and 69 and 9% between 71 and 79. 78% present chronic spontaneous urticaria, formerly known as idiopathic. 73% of the patients followed a treatment with H1 antihistamines, it being the first line of treatment for this pathology. **Conclusions:** The most common form amongst these patients is chronic spontaneous urticaria, primarily affecting women in the age range of 61 to 69 years-old. The main used treatment is H1 antihistamines, improving the patients' symptoms.

Keywords: chronic urticaria, women, spontaneous

SUBCLINICAL VASCULITIS ASSOCIATED WITH RHEUMATOID ARTHRITIS

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Background: Vasculitis refers to an autoimmune disease in which inflammation of the wall of small, medium and large blood vessels is the hallmark feature. It may be a primary disease, but it may also appear secondary in the evolution of other autoimmune diseases such as rheumatoid arthritis(RA), systemic lupus erythematosus(SLE) or systemic sclerosis(SSc). **Objective:** The main purpose of this study was to investigate the occurrence of subclinical vasculitis in the evolution of rheumatoid arthritis. **Material and methods:** In this report we describe the case of a 51 years old patient who has been diagnosed with sero-positive rheumatoid arthritis since may 2016. The patient accuses approximately 5-10 minutes of morning stiffness and intermittent, mixed polyarthralgia, in the small joints of both hands. Laboratory investigations confirm an inflammatory syndrome associated with the presence of rheumatoid factors(RF) and anti-citrullinated protein antibody(ACPA). Initially, the patient received treatment with Methotrexate, Sulfasalazine and Medrol stopped in January 2017 and replaced with Leflunomide, Prednisone and Humira, which is biological therapy. **Results:** A skin biopsy was performed in the right deltoid region, which identifies subclinical cutaneous vasculitis, based on cutaneous atrophy and ballooning of endothelial cells of small blood vessels from the superficial dermis. **Conclusions:** The occurrence of vasculitis in rheumatoid arthritis is related to the sero-positive status and the presence of, anti-citrullinated protein antibody. The diagnosis of RA brings, after several years of evolution, the appearance of vasculitis by affecting the endothelium, by thickening of the vascular walls and by increasing of the vascular rigidity that will favor the formation of small clots in the affected vessels.

Keywords: cutaneous vasculitis, rheumatoid arthritis, rheumatoid factor, anti-citrullinated protein antibody

THE IMPORTANCE OF IMPLEMENTING A HAND HYGIENE PLAN IN THE PREVENTION AND CONTROL OF HEALTHCARE ASSOCIATED INFECTIONS

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Background: Healthcare associated infections are increasingly seeing the interest of patients, insurance

companies and also the government institutions. This is clearly due, because most of them can be prevented. Recent studies have shown mortality and costs are increasing in Romanian Hospitals. Hand hygiene is now regarded as one of the most important element of infection control activities. **Objective:** The purpose of this study is to reveal the important decrease in the rate of healthcare associated infections by providing material resources for good hygiene of the health workers **Material and methods:** A cross-sectional study was conducted during the period from February to March 2020, using a questionnaire that was distributed in University Hospital of Targu Mures to the healthcare professional **Results:** The study was conducted on 112 medical staff from which 24% were doctors, 44% were interns and 29% nurses. 77% of the participants consider the water is visibly clean and in 88,5 % soap is available. Lack of material resources is evident by the lack of disposable towels (20,7%always,33%rare), 2,7% of medical staff have personal hand-held disinfectants, the rest are using the disinfectants at the site of the care points(75%) or placed on the walls of the hospitals(22,3%). One person is appointed to replace the disinfectant (88,9%) and for the existence at each point of care (75,7%) and lavatory (95,7%) of a poster with rules for washing the hand. Only 79,3% have regular audits of hand hygiene, but they are rare, once a year (58,6%), every two years (9,9%) and even less than two years (10,8%) **Conclusions:** The nosocomial infection control programme is a reflection of the general standard of quality of services offered at a given health care centre. Every hospital should provide material resources, well-established rules and implemented to prevent healthcare associated infections.

Keywords: Hand hygiene, healthcare, infections, material resources

FACTORS INFLUENCING HEMORRHAGIC TRANSFORMATION IN ACUTE ISCHEMIC STROKE- CASE REPORT

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Background: Hemorrhagic transformation (HT) can occur spontaneously after acute ischemic stroke or as complication of the recombinant tissue plasminogen activator (rt-PA) therapy. It varies from small petechial hemorrhage infarction (HI) to confluent parenchymal hematoma (PH). **Objective:** After rt-PA treatment, rates from 10% to 30% of HT have been reported, resulting in severe neurological deterioration or death. The aim of this case report is to highlight several risk factors and predictors of hemorrhagic transformation in patients with acute ischemic stroke, in order to establish a pattern that could help clinicians to assess the risk before choosing the rt-PA therapy. **Material and methods:** A 70-years-old patient with a remote history of arterial hypertension, ischemic cardiomyopathy, type II diabetes and atrial fibrillation with unknown onset, previously treated with acetylsalicylic acid anti-aggregation and insulin, was admitted to the Neurology I Department with the following neurological status: left hemiparesis 0/5 for the upper limb and 1/5 for the lower limb, central facial palsy, left hemianesthesia, bilaterally Babinski sign and dysarthria. He had a NIHSS Score of 15. Initial head native CT scan was negative, but CT angiography revealed middle cerebral artery occlusion in M1/M2 segment. After 169 minutes from the onset of the symptoms, rt-PA thrombolysis was performed with no further change in the neurological status. 7 days post-thrombolysis, CT showed several hemorrhagic petechiae on the site of the ischemic lesion and a 3mm midline shift. **Results:** The incidence of the rt-PA induced HT is reported to range from 4,5 to 39,6%, meaning that the thrombolysis itself represents an important risk factor. In addition, we identified other several characteristics that influenced the hemorrhagic transformation at our patient: age, NIHSS, glucose value on admission, high blood pressure, previous antiplatelet treatment, atrial fibrillation. **Conclusions:** The prediction of HT after ischemic stroke influences treatment decisions and by this, the outcome of the patients.

Keywords: risk factors, HT, hemorrhagic transformation, acute ischemic stroke

POSTER - DENTAL MEDICINE

ASSESSMENT OF DENTAL TREATMENTS DURING PREGNANCY

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Background: Pregnancy does not translate into compromising health from a medical point of view. Dental treatment should not be rejected just because a woman is pregnant. Therefore, the dental treatment for this category of patients should be adjusted, as well as the medicines to be prescribed. **Objective:** Appropriate risk assessments for the mother and the fetus should be made. The following should be considered: changes in the oral cavity with increased susceptibility to oral infections, the fetal teratogene risk due to medicines taken by the mother, the susceptibility to surviving hypotensive syndrome as a result of decreased blood pressure and cardiac output while the patient is sitting and the potential danger of vascular coagulopathy as a result of increased coagulation factors. **Material and methods:** A literature review was conducted regarding oral health during pregnancy, which is also a long common concern with obstetricians. They recognize the importance and effect of dental health on pregnancy outcomes. Food intake during pregnancy increases carbohydrate level, increases acid in the mouth from vomiting, reduced saliva production and increased saliva acidity leading to the risk of tooth decay during pregnancy. **Results:** As a result, it is imperative that dental infections should be treated promptly at any time during pregnancy. One of the possible treatment options is endodontic treatment that involves the removal of the affected pulp. **Conclusions:** Pregnant patients are usually not immunocompromised; however, there is suppression of the maternal immune system in response to the presence of the fetus, subsequently leading to a decrease in cell-mediated immunity, as well as the activity of natural killer cells. Thus, odontogenic infections have the potential to progress rapidly. In addition, pregnant women may also receive a prescription and / or pain reliever for pain control.

Keywords: pregnancy, tooth decay, dental treatments

MANAGEMENT OF CURVED ROOT CANALS USING CONVENTIONAL ENDODONTIC METHODS

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Background: The importance of root canal curvatures assessment prior to endodontic therapy has been recognized as an important step, which could reduce procedural errors as well as subsequent failures of the endodontic treatment. **Objective:** Our purpose was to present the clinical application of the above statements, by using Schneider's method for the evaluation of root canal curvature, considering that only root curvatures less than 200 would be within the limits of our competence for endodontic treatment. **Material and methods:** We present the case of a dilacerated upper central incisor, in which the root curvature was evaluated based on Schneider's method. It measures the angle formed between a line parallel to the longitudinal axis of the root in its cervical third, which intersects with a second line, starting from the apical foramina. In our case the angle was 180, which allowed us to start the endodontic treatment, as values under 200 are considered moderate curvatures. We used manual Ni-Ti instruments and lateral condensation technique with Adseal and gutta-percha. **Results:** The radiographic examination showed a correct endodontic treatment, with complete filling of the root canal space. **Conclusions:** Schneider's method is easy to use and we could confirm that based on its results, clinicians can decide if they have the level of competence to treat a particular case or to refer it to a specialist.

Keywords: curved canals, endodontic treatment, Schneider method, endodontic anatomy

TRANSFORMING STUDENT'S LEARNING PROCESS IN A PERFORMING MEDICAL EDUCATION

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Background: Medical education needs efficient transfer of scientific and clinical information. The students of Faculty of Dental Medicine have to improve the skills of communication and empathy for the patients that addressing for the treatment. This process must start in the first years and be completed during the entire learning activity. **Objective:** Our study provides a close look at the competence and motivation of the students. Using actualize theory and dynamic interactionism as a methodological framework, the study uses and explores data from a two-year study program in a major university of Bucharest. **Material and methods:** The study conducted in the Faculty of Dental Medicine explores how to better respond to the needs of diverse learners from both Romanian and English section in the first two years of study. Specifically, it examines characteristics of the process of learning during their participation in lectures and practical sessions. Data collection tools include surveys, observations, field notes and questionnaires. Data were analyzed using the constant comparative method associated with grounded theory research to determine categories of interest and practical improvements. **Results:** The impact of coursework can lead to significant changes in mindset and practice. Course design, duration and structure associated with practical connections and manual skills were key factors in supporting learning process. **Conclusions:** Teachers are expected to manage across cultural differences and to shape learning and practical skills of their students They adapt to teaching models from a variety of countries and connect many levels of understanding and collaboration of the students. The study was conducted within the internal project Performed of Titu Maiorescu University from Bucharest.

Keywords: student's performance, learning process, medical education, improve access

PRELIMINARY LITERATURE REVIEW ABOUT THE CORROSION OF DENTAL ALLOYS USED IN PROSTHODONTICS

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Background: The oral cavity is a complex environment in which it is possible to produce corrosion of the materials used in oral rehabilitation at a rate dependent on salivary pH and corrosion resistance of alloys. **Objective:** We conducted a review of literature about dental alloy's corrosion used in prosthodontics **Material and methods:** We accessed the PubMed database, in which we selected the keywords "corrosion" and "dental alloy" and applied as filters "free full text" and "last 5 years". Following the application of the filters, we selected 53 articles that met the requirements. The articles were downloaded and classified according to the types of dental alloys studied in each article. Out of the 53 articles, 12 were excluded, because it referred to other types of alloys with applications in orthodontics (5), oral surgery as osteosynthesis materials (3) or in therapy of caries (4). **Results:** 20 articles contain studies about titanium-based alloys, 7 studies were about Co-Cr alloys, 2 articles were about Ni-Cr alloys, one study presents gold-based alloys and in 11 were comparisons between the corrosion suffered by several types of dental alloys. **Conclusions:** The dental alloys (except for high-gold alloys) have a higher (high-copper alloy) or lower (titanium-based alloys) corrosion rate depending on their composition, surface treatment and the pH of the environment in which they are exposed. **Acknowledgement:** This study was conducted within the internal project "Relationships between patient's general diseases, the salivary pH and the long-term prognosis of dental restorations (pH DENT)" of Titu Maiorescu University from Bucharest.

Keywords: dental alloys, corrosion, prosthodontics

QUALITATIVE EVALUATION OF DENTAL BONDING LAYERS

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Background: In the modern dentistry composite restoration materials are used widely. Achievement of gap-free margins at the dentin-composite interface and a uniform layer of adhesive is key of success in these restorations.

Objective: The present study tried to focus on the qualitative evaluation of different dental adhesive systems using bulk-fill and universal composite materials. **Material and methods:** In this study 20 extracted premolars and molars were used. Standardized cavities were made, then teeth were divided in four subgroups. Teeth from three subgroup were restored with bulk-fill composite (Filtek Bulk Fill, 3M Espe), using different adhesives: Adper Single Bond 2 (3M ESPE) - total etch technique, Optibond (Kerr) - self-etch technique and Gluma universal bond (Kulzer) - self-etch technique. Teeth from the last subgroup were restored with an universal composite (Charisma, Kulzer) using the Optibond (Kerr) - self-etch system for adhesion. Teeth were sectioned mesio-distally and dentin-composite interfaces were observed by reflected light microscopy (Optika B-500MET). **Results:** The thickest adhesive layers were observed in samples where Gluma universal bond was used. Adhesive layers in samples treated with Optibond were more uniform. In cavities restored with the universal composite material, uniform layers were observed on cavity walls and uneven layers with gaps were observed where two cavity walls metted. In case of the total etch technique gaps were hardly detectable. **Conclusions:** Dental adhesive layer thickness depends on the adhesive and the technique. Formation of gaps and irregularity may lead to micro- and nanoinfiltration, resulting in treatment failure. The use of flowable composite restoration materials may prevent formation of gaps where cavity walls meet.

Keywords: dental adhesive, thickness, composite restoration

CARBON MODELLING IN DENTISTRY

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Background: The carbon footprint is defined as the total greenhouse gas emission, expressed as carbon dioxide equivalent. It could be determined for an individual, organisation or event. In most cases it couldn't be calculated exactly because of the insufficient data about complex interactions. **Objective:** The aim of this study is to realize the carbon modelling of a minimum sized dental surgery, highlighting dental procedures with the highest carbon footprint. **Material and methods:** For carbon modelling we needed to collect data such as the most common treatments, patient and staff travel, waste, energy and water use. For the amount of treatments and patient travel we assessed registers of different dental surgeries. From the treatment procedures the most often used 13 procedures were evaluated. To calculate the energy and water use we determined the minimum sized and equipped dental surgery according to the current law in Romania. The collected data were transformed to carbon dioxide equivalent (CO₂e) with actual Defra conversion factors. **Results:** Carbon modelling resulted an estimated value of carbon footprint of a minimum sized dental surgery of 27, 542.44 kgCO₂e. Considering the 13 procedures evaluated, the porcelain crown contributes the highest proportion (22.8%) to the overall carbon footprint of treatments, followed by metal crowns with 20.3%, composite fillings with 15.4% respectively endodontic treatments with 13.9%. Fluoride varnish, consultation and X-rays contribute less than 2% to the carbon dioxide equivalents of dental procedures. The carbon modelling procedure has identified travel as the main source of emissions. **Conclusions:** Compared to a study realised in England by Public Health England, we realised that travel is the most important factor in both countries. However, the calculated values of treatments show a big difference in ratio between restorative and preventive treatments regarding the gas emission. Dental teams should promote preventive treatments and advise the patients to be conscious in traveling.

Keywords: carbon footprint, dental surgery, dental treatment

REHABILITATION WITH METAL-CERAMIC BRIDGE OF TOOTH LOSS RESULTED BY INTERFERENCES IN CASE OF IMPACTED CANINE ON THE ANTAGONIST ARCH

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Background: The superior canines are the most commonly impacted teeth excepting the third molars, they more often appear in females than males. The canine has an important role in dynamic occlusion. The absence of canine causes difficulties in occlusion, results in position modification of the neighbouring and antagonist teeth and leads to the appearance of interferences. The excessive overload on teeth caused by interferences could generate periodontal injuries and finally even tooth loss. **Objective:** Aesthetic and functional rehabilitation of the tooth loss caused by interferences and the implant-prosthetic rehabilitation of the surgically extracted impacted maxillary canine. **Material and methods:** An oral rehabilitation of a 39-year-old male patient with bruxism was performed. At the clinical examination we found an impacted maxillary canine, the absence of the second left premolar and 3rd grade mobility of the first left premolar which had to be extracted. After the healing of the wound, the mandibular canine and the first molar were prepared with juxtagingival heavy chamfer finishline and a partially covered metal-ceramic bridgework was performed. Following this the impacted maxillary canine was surgically extracted, bone augmentation was done in order to preserve the bone for implant placement. **Results:** In this way it was reestablished the function and partially the aesthetics on the lower arch. The patient was satisfied with the result. **Conclusions:** The early diagnosis of the impacted canine is very important in order to elaborate an accurate interdisciplinary treatment plan. The modifications caused by impacted canines are able to determine tooth loss and difficulties in oral rehabilitation because of the changes regarding the alveolar bone, mucosa and adjacent and antagonist teeth. Nowadays the partially covered metal-ceramic bridge is still a commonly used restoration, which can establish the function and partially the aesthetics.

Keywords: metal-ceramic bridge, interference, impacted canine

CLINICAL-MICROSCOPIC STUDIES ON THE CORROSIVE ACTION OF ORTHODONTIC ARCHWIRES ON TOOTH ENAMEL

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Background: In the oral cavity, archwires come into contact with saliva and various drinks/foods with acid pH, which may cause corrosion, capable of changing their surface morphology. **Objective:** The purpose of this study is the microscopic evaluation of NiTi, SS, b-Ti and physiognomic NiTi archwires, new, immersed (fluoride solutions and coke) and of those used intraorally from point of view of the surface topography, highlighting the signs of wear and corrosion, in accordance with intraoral time of use. **Material and methods:** A total number of 48 archwires were studied (NiTi, SS, b-Ti, physiognomic NiTi), 12 of those were new (as received) GAC-Company, 24 similar archwires immersed in coke (Coca-Cola) and in local flourizing gel agents (Home-care-fluoride-gel, DT) and 12 archwires used intraorally. The right distal parts of each specimen were cut (20mm), one of the fragments being subject to analysis with the optic microscope (OM-Olympus GX51) and the other at SEM (Quanta3D-FEI); in the CCAMF from Tîrgu-Mureş and in the Faculty of Mechanics (UT-Cluj-Napoca). **Results:** The SEM and OM analysis indicate for all new types of archwires parallel striations with the long axis minor circular defects, cracks and irregular porous surface. The archwires immersed in coke and analyzed by SEM determined a rise of the number of porous defects and the appearance of dark spots. The use of the fluoride solution identified through SEM analysis the visible degradation of the surface topography, the corrosion and the peeling of the esthetic coating. The intraoral exposure highlights the appearance of porous corrosion, of friction and of cracks one, visible both at SEM and OM. The degree of impairment being directly proportional to the time of exposure. **Conclusions:** The degree of impairment of surface morphology affected by fluoride and coke solutions, as well as by intraoral use, depends on the presence of initial lesions and is directly proportional to the time of use.

Keywords: orthodontic archwire, corrosion, fluoride, SEM

EVALUATION OF ROOT CANAL MORPHOLOGY OF THE MAXILLARY FIRST AND SECOND MOLARS

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Background: The root canal configuration of teeth is quite diversified, especially in maxillary molars. Furthermore, the existence of a root canal doesn't certify the existence of additional roots. The maxillary first molars are the first permanent teeth in the oral cavity and show a higher caries-exposure compared to other permanent teeth. **Objective:** The objective of the present study is the evaluation of root canal morphology of the maxillary first and second molars in the local population. **Material and methods:** CBCT images of patients were analyzed with "OnDemand CD Viewer" and "Ez 3D+" software. A total number of 26 CBCT images were evaluated and the following data were collected referring to the maxillary first and second molars: number and configuration of roots, number of root canals and in case of the mesio-vestibular root the number of root canal entries and exits. **Results:** Regarding the number of roots, in case of both molars three, rarely four roots were found. In case of two patients the maxillary second molar presented only two roots. Regarding the number of root canals, the differences between the two molars were more obvious. In case of first upper molars four root canals were found more frequently than three canals, in case of the second upper molars this number was found to be inverted. As the second molar usually has three root canals, the configuration in the mesio-vestibular root shows one canal entry and one exit. In case of the first molars with four canals usually, the most common configuration in the mesio-vestibular root shows two entries and one exit. **Conclusions:** The root canal number has a higher importance than the root number, because it can easily differ from the other. Another important conclusion from clinical point of view is that the additional root canal of the upper first molar is always in the mesio-vestibular root.

Keywords: root canal, root, molars

CBCT STUDIES ON THE INCIDENCE OF ENDO-PERIODONTAL LESIONS IN THE MANDIBULAR FRONTAL REGION

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Background: The interrelation between the pulpal tissue and the periodontium is unique, closely linked, being considered as a biological unit, therefore affecting one element of this system leads to the involvement of the other. **Objective:** The aim of this study was to compare the prevalence and distribution of the endo-periodontal lesions in the frontal group of the lower jaw in deep two or three walls bone defects using cone beam computed tomography (CBCT) analysis. **Material and methods:** For examination a number of 15 CBCT were selected and after a visual examination a number of 46 bone defects sites were used for analysis. **Results:** According to our data analysis 59% of deep bone defects which implicate a two or three wall defect had no clinical symptomatology, neither pain sensation or pulp vitality loss. A 24 percent of cases presented periodontal space enlargement accompanied with pain at clinical inspection and 9 percent of cases presented pulp vitality loss without any other clinical symptomatology. 8 percent of cases presented retrograde apical periodontitis as a complication of marginal periodontitis. The most affected area regarding bone loss was at the central incisors level but the most frequent sites with clinical signs were the lateral incisors areas. **Conclusions:** Anatomical abnormalities of the endodontic space of mandibular frontal tooth are well studied in literature and because of this modification this area is the most susceptible to suffer more retrograde pulp complications. CBCT imaging is a technique and tool by clinicians, which helps in the analysis of the diagnosis of endo-periodontal lesions extend. The preoperative CBCT imaging highlights complementary information regarding diagnosis and treatment planning.

Keywords: Endo-periodontal lesions, CBCT, Diagnosis

EVALUATION OF THE SEALING ABILITY OF TWO ROOT-END FILLING MATERIALS: AN IN VITRO STUDY

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Background: Primary endodontic therapy has excellent results, but there are still failures which require retreatment. For these cases, the best approach is apicoectomy with retrograde filling, in order to promote apical healing **Objective:** The aim of our study was to evaluate the marginal microleakage of retrograde fillings with reinforced zinc oxide cement (Super EBA) and MTA, based on the dye penetration technique. **Material and methods:** 16 single rooted extracted teeth were instrumented with rotary ProTaper files and obturated with Adseal and gutta-percha, according to the lateral condensation technique. After complete setting of root filling materials, retrograde cavities of 3 mm depth were prepared and teeth were randomly selected into Group A - Super EBA and Group B - MTA. The roots were protected with nail varnish, immersed 8 hours in 1% methylene blue and longitudinally sectioned for evaluation. Apical leakage was measured on digital images from a camera of a stereomicroscope (Leica Microsystem, Nussbach, Germany) at X10 and measured with RadiAnt computer program. The data was statistically evaluated using chi-square test and the level of significance was set at a value of $p < 0.05$. **Results:** 5 specimens (62.5 %) from Group A showed dye penetration (range between 0.8-2.7 mm) and in 2 cases it exceeded the length of the retrograde filling (3,2 and 3.8 mm). In Group B the dye leakage was present in 3 cases (37.5%) and in was less than 2 mm (range between 0.4-1,3 mm). There was a significant difference between the groups, with a $p < 0.05$ **Conclusions:** MTA cement offered a better seal compared to Super EBA, but as with any in vitro study, the extrapolation of these results into clinical situations is difficult, as the working conditions are different

Keywords: microleakage, MTA, root-end filling materials, apical dye penetration

THE INFLUENCE OF FINISHING AND POLISHING ON THE COLOR STABILITY OF COMPOSITE RESINS

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Background: Dental materials use for esthetic restorations should resemble the color of natural teeth and for the long-term success of these fillings, another important quality is the color stability, despite exposure to oral environment. **Objective:** In our in vitro study we evaluated the influence of finishing and polishing procedures on the color stability of nanohybrid composite resins after immersion in staining solutions for different periods of time. **Material and methods:** We prepared 51 disks of composite using a metallic mold and polyester strips, which were randomly selected in one of the following groups, according to the finishing and polishing procedures performed: Group A-Diamond fine and ultrafine burs, Group B- Diamond pro (course, medium, fine and extrafine disks), Group C- SiC paper. From each group, 5 specimens were introduced for 30 days in orange juice, coffee and red wine and 2 disks were introduced in water. The color change was checked after every 7 days and digital photos were made and the evaluation of color change was made based on Adobe Photoshop software which converted the green, blue and red values into CIELab values. The recorded data was statistically evaluated using the three-way analysis of variance (ANOVA) and Tukey's test for means comparison, with the level of significance set at a value of $p < 0.05$. **Results:** The most intense color change was induced by orange juice and red wine. The control group showed the most intense color change while the study group in which the alterations were minimal was Group B ($p < 0.05$). **Conclusions:** Finishing and polishing are important steps in obtaining long term stability of composite resins. According to our results, the use diamond burs alone is not providing expected protection and color stability in time. Therefore, association of polishing disks is necessary for obtaining good long term results.

Keywords: composite resin, color stability, finishing, polishing

POSTER - PHARMACY

PRESENTATION OF THE UNUSUAL IGG4 ASSOCIATED DISEASE

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Background: The uncommon IgG4 disease presents as a multi-organ lymphoproliferative disease with characteristics including: lymphoplasmocellular infiltrate rich in IgG4 plasma cells, fibrosis with a storiform pattern and obliterative phlebitis, tutor-like lesion formation, high serum concentration of IgG4 (60%), and good sensitivity to corticosteroids. This pathology occurs more commonly in males over the age of 50, and may present a spread to the pancreas, kidneys and retroperitoneally. **Objective:** The case is of a 77-year-old Caucasian male diagnosed with IgG4 disease, along with a history of benign prostatic hyperplasia (diagnosed at 70) and diabetes mellitus type II (diagnosed at 71). **Material and methods:** During his medical history, he underwent a diabetic follow up with an ecography at the level of the salivary glands, and a fine needle aspiration of the right mandibular gland. Following this, a prostatic follow up with a corresponding fine needle aspiration was performed. Furthermore, a computerized tomography of the thorax and abdomen, and an additional magnetic resonance of the superior abdomen with a contrast medium. **Results:** The magnetic resonance revealed an edematous pancreas accompanied by cysts with thin septa (35x24mm) in caput pancreaticus with a cranio-caudal diameter of 26mm, along with cysts lacking septa (26x14mm) between the caput and column of the organ. Celiac-mesenteric lymphadenopathies are also apparent, and the IgG4 level was assessed at 5200 mg/dl (normal value 10-140 mg/dL). The main diagnostic hypothesis is concluded as possible peptic ulcers and infiltration of the pancreatic neoplasm. This patient will require a guided computerized tomography biopsy, a biopsy of the gastric lesions, and surgery. **Conclusions:** The expected prognosis is a chronic and progressive evolution of the disease, with the possibility of death due to cirrhosis, retroperitoneal fibrosis, aneurysm or diabetes mellitus. Through evaluation of this patient, a diagnosis was made, leading to the establishment of a correct therapeutic approach and monitoring of the patient.

Keywords: IgG4, Pancreas, Therapy

FORMULATION AND EVALUATION OF NEW MOISTURIZING CREAMS BASED ON MATRICARIA CHAMOMILLA EXTRACT

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Background: Skincare concept dates since ancient times when women were choosing natural remedies to increase their beauty. Even today, the use of moisturizing creams with an antioxidant potential represents a trend in the cosmetic area. **Objective:** Therefore, the aim of this study was to develop and evaluate new formulations for antioxidant moisturizing face creams with Matricaria chamomilla extract. Antioxidant and anti-inflammatory properties of this herb are the primary reason for its use in cosmetics. **Material and methods:** Ingredients used for creams formulation: oily herbal extracts prepared from Matricaria chamomilla flowers using castor oil and olive oil; stearic acid; bees wax and cetaceum; triethanolamine; vitamin A; water. The creams were prepared by emulsification at 80°C and vitamin A had been added at room temperature. Antioxidant potential of the two oily herbal extracts was evaluated using DPPH free radical. The visual appearance, pH, spreadability and moisturizing action (Corneometer CM825-Courage&Khazaka, 4 volunteers) was determined. **Results:** The antioxidant activity of chamomile extract in castor oil (2.82 ± 0.57 mg/mL) was higher than that of chamomile extract in olive oil (10.88 mg/mL). The two obtained water in oil emulsion-based creams were homogenous and had smooth texture and moisturizing properties. The pH of the creams was 8.1 for the cream with herbal castor oil extract and 8.2 for the cream with herbal olive oil extract at 24.8°C respectively. **Conclusions:** The pH of both creams correspond to the regulations of the Pharmacopoeia. The olive oil determined a better spreadability for the cream. The hydration level increased with 30% for two of the volunteers at 4 hours after application. The cream with chamomile extract in castor oil did not significantly change the skin hydration level of the selected volunteers.

Keywords: Matricaria chamomilla, antioxidant, moisturizing, creams

NEW DIRECTIONS TO IMPROVE DRUG QUALITY AND SECURITY BY SERIALIZATION

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Background: Pharmaceutical serialization assures a unique recognition number for every drug unit. The given number is useful for tracking and authentication of drugs in the distribution chain and to identify counterfeit products. The need for this process is to stop purchasing uncertainly quality products and to diminish fraud attempts. Nowadays, a joint between international authorities was made to ensure the patient's safety. **Objective:** The general objective of this work is to highlight the importance of serialization and it's implementation that have social, economic and legal consequences. **Material and methods:** There are multiple ways to combat counterfeiting of medicines: analytical methods, development of the lab equipment (portable, efficient, and economic), or diverse digital solutions as radio frequency identification, online verification, advanced computational methods, and blockchain technology. It is mandatory for an urgent legislation correlation at the international level to consolidate and adopt applicable regulation for every entity involved in the production, distribution and sale of medicines. Current legislation states the immense effort to improve the traceability of drugs in the field of quality assurance of the pharmaceutical industry. **Results:** Effective collaboration has been established worldwide to protect public health and to promote access to safe medicines. Notable examples are Global Monitoring and Surveillance System (launched by World Health Organisation), a directive focused to counterfeit drugs (implemented on European Union), and "Fight the Fakes" campaign supported by doctors, pharmacists, institutions, non-governmental organizations, and foundations. Consequently, numerous counterfeit drugs were identified in different regions of the world. Also, the collaboration between the pharmaceutical industry and law enforcement led to harsher penalties for those who falsify medicines. **Conclusions:** Due to multiple incidents regarding counterfeit medicines, the necessity of a global implementation of a serialization system in the pharmaceutical industry is required for assuring the authenticity of the medicinal products and safe therapeutic solutions for patients.

Keywords: serialization,, counterfeit medicines,, fake medicines,, pharmaceutical industry

POLYMORPHISM OF CYTOCHROME P450 ENZYMES – CONSEQUENCES ON THE EFFICIENCY OF PHARMACOLOGICAL TREATMENTS

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Background: Although genetic testing for cytochrome P450 polymorphism is not currently part of standard diagnostic and treatment protocols, knowledge of gene expression and activity of this enzymatic system has proven to be useful in predicting optimal therapeutic dosage and avoiding potential adverse and toxic reactions. **Objective:** This paper aims to highlight the main reasons why the individual genotype should be taken into account when determining the optimal dose of a pharmacological treatment. **Material and methods:** Data analysis of the scientific literature regarding the consequences of genetic polymorphism in patients undergoing various pharmacologic treatments. **Results:** The variant alleles of the genes encoding cytochrome P450 enzymes are associated with reduction or amplification of the enzymatic activity, resulting in four metabolizing phenotypes: extensive, intermediate, poor and ultra-rapid. About 10-20% of the population belongs to the risk groups for which standardized dosing does not have the same effect as for the rest of the population, represented by extensive metabolizers. In case of intermediate and slow metabolizers, it is necessary to reduce the administered dose in order to avoid accumulation of drugs in the body, due to a delayed elimination of the active substances. At the opposite end, ultra-rapid metabolizers will achieve minimal therapeutic effects from standard doses of drugs, because of the immediate cleavage of the pharmaceuticals in the liver. In case of prodrugs, the lack of activation by poor metabolizers or the reaching of toxic levels in ultra-rapid metabolizers leads to therapeutic failure and overdose, with serious, even fatal consequences for patients carrying polymorphic alleles. **Conclusions:** The polymorphism of cytochrome P450 enzymes plays an important role in predicting optimal therapeutic doses and the implementation of pharmacogenetic information in clinical practice could improve pharmacovigilance.

Keywords: CYP450 polymorphism, pharmacogenomics, precision medicine, pharmacovigilance

SENSORY ANALYSIS IN COSMECEUTICAL PRODUCTS DEVELOPMENT

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Background: Sensory analysis represents the totality of the sensory properties - color, texture, smoothness, smell, softness, fluidity, freshness, shininess- one of the most important factors of analysis of the cosmetic product, being the first contact that the consumer has with the product, having an essential role in the selection and decision of buying. Sensorial testing is more than an analysis of sensory testing, which also includes consumers emotional reaction to a particular product. **Objective:** The present paper aims to provide insight into the different methods of sensorial analysis for skin care products. **Material and methods:** Published data suggest the existence of two main categories of sensorial analysis methods: analytical (objective) and preferential (subjective). Of particular importance are the test rooms, where precautionary measures are required so that the external factors do not influence the evaluators. The evaluators are divided into two categories: consumers (untrained panelists) and trained panelists. Trained panelists are persons who have completed specialized sensory faculties or have been trained subsequently. **Results:** The present paper presents the sensorial studies based on the two previously mentioned methods and their data interpretation profile. Applied analytical methods: pair sampling, two of five, duo-trio, triangle method, "A" or "not A". Between the preferential (subjective) methods, a good efficiency in the results was noticed within the method by comparison with the unitary score scale. **Conclusions:** In dermatocosmetic product formulation, different methods of sensory analysis are necessary in order to meet the requirements and needs of consumers. The sensory qualities of a product are essential nowadays; therefore, the methods of sensorial analysis are highly used. Sensory analysis adds to the creation, development of cosmeceutical products, being more than an analysis of the senses, having a substantial impact on the future choices of a product.

Keywords: sensory analysis, cosmeceutical products, panelist

ARSENIC CONTENT SCREENING IN THERMAL WATERS AND CREAMS AS WIDELY USED COSMETICS

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Background: The Arsenic toxicity is cumulative to the exposure dose, it targets widely dispersed enzyme reactions, and it has already been reported at the ingestion of contaminated good water, from a natural groundwater source. However, very little is known about the chemical form of arsenic regarding skin absorption in specific populations. Cosmetics based on thermal waters have become very popular in the past years. **Objective:** The screening of arsenic content was performed in some commercial widely used cosmetics, which are based on thermal waters and whose manufacturers recommend that they could be used in different forms, in the daily cosmetic care. **Material and methods:** Six pairs of commercial products from different brands (1-6), constituted each of two forms of the same brand (spray -S and creams -C, based on same thermal water) were selected from pharmacies and beauty shops. Speedwave DAP-60+ (Berghof, Germany) was used to process the samples by digestion to clear liquids, and NexION 350 ICP-MS (PerkinElmer, USA) to measure the arsenic level (As) in the processed samples. Statistical significance was set at $p < 0.05$. **Results:** The determined values of arsenic were found in all samples under the admissible limits in the European Union (max. 10 µg/g in water, and max. 3 µg/g in cosmetics), with statistically insignificant differences ($p = 0.2072$) when comparing the same brand products (C vs S). However, one of the cosmetics pairs shown the As-levels very close to the allowed limits, for both products: 2.243 µg/g (S6) and 2.970 µg/g (C6), respectively. **Conclusions:** If used by themselves, the studied products would not pose a threat to human health. Because the association of S6 and C6 is very close to the maximum allowed limits, the manufacturer should label the arsenic level as an impurity of thermal waters, accompanied by warnings and specific limitations regarding the associated use of thermal water products.

Keywords: arsenic, cosmetics, thermal water, facial cream

NANOPARTICLES USED FOR INTRANASAL VACCINE DELIVERY

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Background: To develop vaccines with intranasal administration various types of nanoparticles are used. The nanoparticles used can be classified into 4 categories: polymers (polylactic co-glycolic acid - PLGA), polysaccharides (chitosan and starch), protein nanoparticles (proteosomes) and lipid nanoparticles (liposomes).

Objective: This study aimed to offer an overview of nanoparticles (with a different delivery agent) used for intranasal administration. **Material and methods:** A study of the following scientific databases was made: PubMed, ScienceDirect, Tandfonline, using as keywords "intranasal vaccination", "nanoparticles" and "polymers".

Results: The most used polysaccharide to obtain nanoparticles for intranasal administration was chitosan with particles sized from 80 to 680 nm as a function of the virus contained (mostly Influenza type - H1N1 or H1N2). From the polymer's category, the most used for intranasal delivery is PLGA with size ranging from 225 nm to less than 2.5 µm. The viruses encapsulated were the Bovine Parainfluenza 3 virus (BPI3V) and the Swine Influenza virus (H1N2). Also, liposomes with sizes less than 100 nm and inorganic substances such as gold with sizes less than 12 nm were used as delivery agents. **Conclusions:** Even though many studies highlighted the advantages of the intranasal vaccine administration, not so many vaccines having intranasal administration can be found on the market, while nanovaccines presented scattered results during the clinical studies so until now there is no nanoparticle sized vaccine with intranasal administration found on the market. In Romania, there is one quadrivalent intranasal vaccine used to treat the flu which has H1N1 and H1N2 virus strains formulated as a suspension.

Keywords: intranasal vaccination, nanoparticles, polymers

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