Volume 67 | Supplement 1 | 2021

ACTA MARISIENSIS
SERIA MEDICA

OFFICIAL PUBLICATION OF THE
GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE, AND TECHNOLOGY OF TARGU MURES

INTERNATIONAL CONGRESS FOR STUDENTS, YOUNG DOCTORS AND PHARMACISTS MARISIENSIS

12th – 16th May 2021

Târgu Mureș, Romania

BOOK OF ABSTRACTS

ISSN: 2668-7755 • Online ISSN: 2668-7763 • www.actamedicamarisiensis.ro

UNIVERSITY PRESS
19 99
TÂRGU-MUREȘ

Acta Marisiensis - Seria Medica

Volume 67 | Supplement 1 | 2021

INTERNATIONAL CONGRESS FOR STUDENTS, YOUNG DOCTORS AND PHARMACISTS MARISIENSIS

12th – 16th May 2021
Târgu Mureș, Romania

BOOK OF ABSTRACTS

Acta Marisiensis - Seria Medica

Acta Marisiensis - Seria Medica (ISSN 2668-7755) is the official publication of the George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Targu Mures, being published by University Press, Targu Mures.

The journal publishes high-quality articles on various subjects related to research and medical practice from the all the medical and pharmaceutical fields, ranging from basic to clinical research and corresponding to different article types such as: reviews, original articles, case reports, case series, letter to editor or brief reports. The journal also publishes short information or editorial notes in relation to different aspects of the medical and academic life.

Information for contributors

Manuscripts must be submitted via editorial manager system, available online at **www.editorialmanager.com/amma**

Correspondence

All correspondence should be addressed to the Editorial Office:
Acta Medica Marisiensis
George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Targu Mures
38, Gh. Marinescu St, 540139 Tîrgu Mureş, Romania
Managing Editor Associate Professor Adrian Man
or sent by e-mail to ammjournal@umfst.ro

Acta Marisiensis - Seria Medica is indexed in the following international databases:

- Celdes
- CNKI Scholar
- CNPIEC
- EBSCO Discovery Service (since 01 July 2010, first indexed number - no.4/2010)
- Google Scholar
- J-Gate
- Primo Central (ExLibris)
- ReadCube
- Summon (Serials Solutions/ProQuest)
- TDOne (TDNet)
- WorldCat (OCLC)

DTP and Website Management
Editura Prisma

Disclaimer

The views expressed in this journal represent those of the authors or advertisers only.
In no way can they be construed necessarily to reflect the view of either the Editors or the Publishers.

This journal is printed on environmentally-friendly ECF (elemental chlorine free) woodfree paper.

INTERNATIONAL CONGRESS FOR STUDENTS, YOUNG DOCTORS AND PHARMACISTS MARISIENSIS

12th – 16th May 2021, Târgu Mureș, Romania

Organizing Committee

President: Andreea Mocanu

Vice-president: Andrei Manea

Financial Vice-president: Paul Sorin Cotoi

Scientific Department

Medicine

Gabriela Oancea
Emilia Găitan
Cosmin Constantin Mutu
Ioana Aspru
Gherghel Bogdan Vasile

Military Science

Ana Dobrin

Dental Medicine

Bianca Stătescu
Diana Belceanu
Teofana Amarie

Pharmacy

Izabella Cristina Radu
Anca Trif
Andrada Pintea

Law

Diana Moldovan

Engineering

Flavia Andron
Paula Ferenczi

Social Department

Mihaela Măican
Raluca Baciu
Maria Baldea

Secretariat & Financial Department

Dragoș Petrișor
Cristina Hidoș
Mara Ilovan

Administrative Department

Gianluca Maros
Andra Balan

HR Department

Adelina Cîrstian
Mihai Sferle
Dragoș Corău

International Department

Anda Dilara Nicole Mețac
Rareș Manolachi

PR Department

Cătălin Sârbu
Emese Erdely
Iustina Guraliuc

IT Department

Paul Robert Laszlo
Paul Frigură
Victor Chisăliță

Fundraising Department

Sergiu Laszlo
Ruxandra Filip

SideMed

Gabriel Elteș
Alexandra Luca

OSMU

Dimitris Bello

Managing editor AMM

Prof. Dr. Adrian Man

The Peer Review Committee

Prof. Dr. Ioan Țilea
Prof. Dr. Alina Șerban
Prof. Dr. Simona Gurzu
Prof. Dr. Theodora Benedek
Prof. Dr. Călin Molnar
Prof. Dr. Rodica Bălașa
Lecturer Dr. Bianca Grigorescu
Lecturer Dr. Monica Copotoiu
Lecturer Dr. Claudiu Molnar
Lecturer Dr. Andreea Varga
Lecturer Dr. Marius Mihai Harpa
Assistant Prof. Dr. Cătălin Coșarcă
Assistant Prof. Luminița Decean

BASIC MEDICAL SCIENCES

THE RELATION BETWEEN SARS-COV-2 VIRAL LOAD AND BIOCHEMICAL AND HEMATOLOGICAL MARKERS

Maria Antonia Balan[1], Patrick Lechsner[1], Anca Mare, Cristina Elena Gîrbovan, Cristina Nicoleta Ciurea[1], Adrian Man[1]

[1]UMFST Tîrgu Mureş

Background: Diagnosing SARS-CoV-2 infection is crucial nowadays and, despite the high impact of COVID-19, there is still lack of information regarding mechanism of infection and its impact on paraclinical investigations. **Objective:** The study aims to analyze the differences between biomarker values and viral load on patients with positive RT-PCR tests for SARS-CoV-2. **Material and methods:** By retrospectively investigating the database from Mures County Hospital, 247 patients with positive SARS-CoV-2 RT-PCR tests collected between June to November 2020 were included in the study. For each patient ALT, AST, GGT, bilirubin, creatinine, CK, LDH, CRP, urea, prothrombin time, INR, fibrinogen, as well as the complete blood count were noted. The patients were divided into two groups, according to the Ct value of the N gene as reported by the RT-PCR test; the first group included patients with high viral load (Ct<25), while the second one included patients with lower viral load (Ct 26-37). Unpaired t-test and Mann-Whitney Test (α =0.05) were used to compare the significance of paraclinical investigation results between the two groups. **Results:** Both groups presented a rather similar gender distribution, with an age predominance greater than 40 years. A statistically significant difference was found for ALT and urea (higher values and more extreme values in the group with Ct<25), respectively for leukocytes, thrombocytes, and neutrophils (higher values in the group with Ct 26-37). No significant differences were found for the other markers. The average values in the two groups were: 66.4±199.4 U/L vs 53.1±52.8 U/L for ALT; 41.68±44 mg/dL vs 40.3±23.8 mg/dL for urea; 6.8±3.8 * 10^3/mm3 vs 7.7±4.4 * 10^3/mm3 for leukocytes; 198±74 * 10^3/mm3 vs 227±77 * 10^3/mm3 for thrombocytes; 4.74±3.81 * 10^3/mm3 vs 5.45±3.61 * 10^3/mm3 for neutrophils. **Conclusions:** The viral load of SARS-CoV-2 significantly influences serum levels of ALT and urea, and is associated with alteration of leukocyte, thrombocyte, and neutrophil count.

Keywords: SARS-CoV-2, COVID-19, biomarkers

WHAT DOESN'T KILL YOU, DOES IT REALLY MAKE YOU STRONGER? A STUDY ABOUT ETHICAL AND NEURAL IMPLICATIONS OF NEUROENHANCEMENT

Alexandra Bianca Faraon[1], Alexandra Ionela Strugariu[1], Lorena-Elena Păun[1], Doctor Elena Albu[1]

[1]UMF Gr. T. Popa Iaşi

Background: The term "neuroenhancement" refers to the targeted enhancement and extension of cognitive and affective abilities, based on an understanding of their underlying neurobiology in healthy individuals, without any mental illness. Psychopharmacology provides readily available options, such as anti-dementia drugs (acetylcholinesterase inhibitors donepezil, galantamine) and the well-validated nootropics (central nervous system stimulants amphetamine, methylphenidate, modafinil, caffeine)**Objective:** This study aims to objectively analyse the pharmacodynamics and ethical implications of cognitive enhancing drugs usage amongst medical students, with regards to the neural mechanisms involved in these processes. **Material and methods:** We have analysed 15 studies that surveyed students worldwide, with predilection the ones subjected to the medical field, on the topic of cognitive enhancers usage, quantifying their statements according to the neural mechanisms of the substances of preference. **Results:** An overwhelming majority of 87% of individuals, who declared to have used neuroenhancers, has got into the habit of using central nervous system stimulants. 33% of the nootropics users have stated to resort to caffeine on a daily, 18% have taken either Ritalin (methylphenidate) or Adderall (racemic of amphetamine) and the remaining individuals have got into the habit of using nicotine. A small percentage of those surveyed have declared to illicitly use donepezil. **Conclusions:** The cognitive enhancing methylphenidate has proven instrumental in improving both working and episodic memory, augment attention span and planning latency. Task saliency and performance on tedious tasks have shown considerable potentiation after amphetamine use, while caffeine and nicotine are well known to endorse alertness. The ethical substrate of this behaviour targets the unevenness embroided by the illicit use, competitive-induced usage coercion, both faulty assuming there is, in fact equity and equality in socio-economic conditions, as well as individual genetic heritage.

Keywords: neuroenhancement, nootropics, ethical implications, cognitive abilities

CYTOKINE PRODUCTION IN EX-VIVO STIMULATED FRESH AND CRYOPRESERVED T-CELLS

Monica Vuță[1], Ionela-Maria Cotoi[1], Ion-Bogdan Mănescu, Minodora Dobreanu[1], Doina-Ramona Manu[1]

[1]UMFST Tîrgu Mureş

Background: In vitro cytokine production by peripheral blood mononuclear cells (PBMCs) is an important and reliable measure of immunocompetence. PBMC can be stimulated directly after isolation or frozen for later use. However, cryopreservation may affect cell recovery, viability and functionality. **Objective:** This study aims to investigate cytokine synthesis in ex-vivo stimulated fresh and cryopreserved CD4+ and CD4- T cells. **Material and methods:** PBMCs were obtained by Ficoll gradient centrifugation from heparinized peripheral blood of 6 middle-aged clinically healthy subjects. Half of these cells (labeled "Fresh") was further processed and the other half (labeled "Cryo") was cryopreserved at -140^{o}C for up to 3 months. Fresh-PBMCs were activated with Phorbol-Myristate-Acetate/Ionomycin/Monensin for 5 hours immediately after isolation while Cryo-PBMCs were identically activated after thawing and cell resting. Activated cells were fixed, permeabilized and intracellular cytokine staining was performed using Phycoerythrin (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 by flow cytometry. **Results:** Both Fresh and Cryo CD3+CD4+/CD3+CD4- subpopulations partially produced each of the three cytokines. A higher percentage of CD4+ T cells produced IL-2 and TNF-α and a greater percentage of CD4- T cells were found to produce IFN-γ. A significantly higher percentage of Cryo-lymphocytes was shown to produce TNF-α in both CD3+CD4+ (31.4% vs 24.9%, p=0.031) and CD3+CD4- (22.7% vs 17.9%, p=0.031) subpopulations. No notable difference was found for IL-2 and IFN-γ production between Fresh and Cryo T cells. **Conclusions:** Cryopreservation for up to 3 months significantly increases TNF-α production of T-cells in clinically healthy middle-aged subjects.

Keywords: stimulated T cells, PBMC, cryopreservation, cytokine

HOW POSTPRANDIAL HYPERLIPIDEMIA INFLUENCES THE PHENOTYPE OF MONOCYTES AND GRANULOCYTES?

Ionela-Maria Cotoi[1], Monica Vuță[1], Ion-Bogdan Mănescu, Minodora Dobreanu[1], Doina Ramona Manu[1]

[1]UMFST Tîrgu Mureş

Background: Hyperlipidemia has been shown to induce an inflammatory state and up-regulate the expression of adhesion molecules in endothelial cells and leukocytes. Atherosclerosis progression requires CD11b-mediated infiltration of atherosclerotic plaque by inflammatory cells such as monocytes (Mono) and probably neutrophils (Neu). **Objective:** The aim of this study was to investigate the effect of postprandial hyperlipemia on Mono/Neu CD11b expression. **Material and methods:** Peripheral blood samples were obtained from 8 healthy participants after overnight fasting and 5hrs after a standardized high-fat meal. Cells were prepared either by Ficoll centrifugation and then stained, or by erythrocyte lysis after being directly stained for CD14,CD15,CD11b surface markers, then analysed on a BD-FACSAria-III flow cytometer. Triglycerides(TG), total cholesterol(CHOL), HDL-cholesterol(HDL-C), and LDL-cholesterol(LDL-C) concentrations were analysed and the postprandial/fasting index(I) was calculated. Correlation tests were performed between mean fluorescence intensities (MFI) for markers' expression and lipid indexes. **Results:** For samples obtained by erythrocyte lysis: CD14+CD15-CD11b+monocytes from Mono-gate showed negative medium-to-high correlations between MFI-CD14 and I-TG (r=-0.70/p=0.05) and I-CHOL (r=-0.60/p=0.11). All CD14-CD15+CD11b+ cells showed negative medium-to-high correlations between MFI-CD15 and I-TG, I-CHOL, and I-HDL-C (Neu-gate: r=-0.72/p=0.04, r=-0.51/p=0.19, and r=-0.57/p=0.13, respectively; Mono-gate: r=-0.67/p=0.06, r=-0.62/p=0.09, and r=-0.76/p=0.02, respectively). However, only CD14-CD15+CD11b+ cells identified in the Mono-gate showed strong positive correlations between MFI-CD11b and I-CHOL (r=0.92/p=0.0008), I-LDL-C (r=0.87/p=0.0043), and I-HDL-C (r=0.80/p=0.01). Also, CD14-CD15-CD11b+ cells from Mono-gate showed positive correlations between MFI-CD11b and I-TG (r=0.51/p=0.19), I-CHOL (r=0.86/p=0.005), I-HDL-C (r=0.68/p=0.06), I-LDL-C (r=0.72/p=0.04). For samples obtained using Ficoll, the CD14+CD11b+ cell population showed similar, but weaker negative correlations. Contrarily, CD14-CD11b+ cells showed moderate negative correlations between MFI-CD11b and cholesterol indexes. **Conclusions:** The effect of plasma lipids on Monocyte/Neutrophil phenotype seems to be complex and multifaceted. After erythrocyte lysis,

postprandial/fasting lipid indexes correlated well with the expression of CD11b on CD14- cells from the monocyte gate. Ficoll isolation seems to alter and even invert some lipid-profile/cell-phenotype relations shown in lysed samples.

Keywords: postprandial hyperlipidemia, monocytes, adhesion molecules, CD11b

---

A COMPARATIVE ANALYSIS OF DOUBLE-STRANDED DNA BREAKS BETWEEN CRYOPRESERVED AND FRESHLY ISOLATED LYMPHOCYTES, VIA CONFOCAL MICROSCOPY

Tudor Gabriel Boghițoiu[1], Peter Alexander Luchian[1], Măriuca Drăgan[1], Ghizela Maria Oprea, Manu Doina Ramona, Minodora Dobreanu[1], Piroska Haller[1]

[1]UMFST Tîrgu Mureş

Background: Genotoxic stress can trigger DNA repair processes or cell cycle arrest with the end goal of cell recovery or apoptosis. A marker that is typically used to assess for both, sites of double-stranded breaks and DNA repair response to damage, is γH2AX - a phosphorylated form of H2AX histone. Cryopreservation is a technique utilized in cell preservation and storage. One of the main disadvantages of cryopreservation is the tendency of inducing apoptosis and metabolic changes. In addition, the cytotoxic effect of the cryoprotectants, in conjunction with the freezing-thawing process, can contribute to these cellular changes. **Objective:** The objective of this study was to compare the expression of γH2AX between cryopreserved lymphocytes and freshly isolated lymphocytes, which were exposed to optimized concentrations of tert-Butyl hydroperoxide(TBH), using confocal fluorescence microscopy. **Material and methods:** Peripheral blood mononuclear cells(PBMC) previously isolated by Ficoll density gradient centrifugation have been cryopreserved at -140^{O}C for a period of more than 2 months with RPMI-1640 medium containing 20%FBS and 10%DMSO. Cells were thawed and processed via a cell recovery protocol, then activated for 72 hours with CD3/CD28. The cells were treated for 30 minutes with 0,50,100,200μM of TBH and then specifically tagged with DAPI/antiγH2AX-Alexa488 and analyzed with LeicaTCS-SP8. The image analysis was performed with ImageJ software (https://imagej.nih.gov/ij/). **Results:** Cryopreserved T cells showed higher levels of γH2AX expression, compared to T cells from freshly isolated PBMC of the same donor. While higher TBH concentrations increased the expression of γH2AX in fresh T cells, the previously cryopreserved T cells showed no clear connection between TBH concentration and γH2AX expression. **Conclusions:** Despite cryopreserved lymphocytes showing higher levels of γH2AX expression, it remains to be analyzed whether this effect is due to the cryoprotectant utilized or the accelerated cell metabolism following the thawing process.

Keywords: DNA-damage, γH2AX, confocal microscopy, cryopreservation

---

TAKING THE MEDICAL ADMISSION TEST MULTIPLE TIMES NOT CORRELATED WITH LOWER GRADE AT THE RESIDENCY EXAM

Matei Iurea[1], Simona-Maria Turcanu, Cristina Marii[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Taking the medical college admission test (MCAT) at the top medical colleges in Romania is one of the most challenging experiences for a candidate. It is not uncommon for many candidates to take the medical admission test multiple times as the exam per se is not only difficult, but also brings some of the most intelligent and well prepared people looking forward to getting into medical school. **Objective:** Our objective was to asses whether or not the average residency exam results of the people who had passed the MCAT from te first time were different from the average residency exam results of the people who had taken the MCAT at least two times. The secondary objective was to asses whether or not the MCAT result could predict the outcome of the residency exam. **Material and methods:** This study included 512 residents who had taken the Residency exam in 2019. They were given a carefully curated online survey which included a specific set of questions regarding the MCAT and residency exam results and other associated information. **Results:** After applying the inclusion/exclusion criteria, only 464 submissions were taken into consideration for the final draft of the study. Descriptive statistics were calculated and Student T tests were applied to compare the residency exam results of the people who had passed the MCAT the first time from the results of the people who had taken the MCAT at least 2 times. The comparison tests did not find significant differences between these 2 categories ($p<0,03$). Moreover, there were no significant differences between the 2 categories concerning the MCAT results and the residency exam results

(p<0,046). **Conclusions:** There are no differences between the Residency grade of the people who had passed the MCAT the first time from the people who had taken the MCAT at least 2 times.

Keywords: residency, medical school, medical college admission test

THE ADVANTAGE OF BIOINFORMATIC ANALYSIS IN THE DIAGNOSIS OF MAROTEAUX–LAMY SYNDROME

György Attila Tamás[1], Dr. Kovács Zsolt[1]

[1]UMFST Tîrgu Mureş

Background: The diagnosis of lysosomal storage diseases could be challenging in most of the cases and is primarily based on enzyme assay. This problem is well-illustrated by Mucopolysaccharidosis Type VI also known as Maroteaux-Lamy syndrome, in which the breakdown of glycosaminoglycans is damaged due to the deficiency in the enzyme arylsulfatase B (ARSB) caused by homozygous or compound heterozygous mutation in the ARSB gene (5q14). Particularly, due to ARSB disfunction dermatan sulfate and chondroitin sulfate molecules easily build up in cellular lysosomes, resulting in the affection of multiple organs. **Objective:** In my research I am aiming to ease the diagnosis of this rare autosomal recessive lysosomal storage disorder with the help of bioinformatic analysis, using a program made by myself. **Material and methods:** The goal of the bioinformatic analysis is to facilitate the comparison of the sample DNA sequence, obtained from chromosomal sequencing, with the structure of the normal gene. **Results:** The program written in C# can recognize the ARSB gene introduced in FASTA format and to detect if it is different from the normal sequence. In this case, it determines the exact positions and the type of nucleotides in which the introduced sequence is different from the normal one. In a further step the program can transcribe the sequence of the introduced gene into mRNA, and then to generate the structure of the protein encoded by this. **Conclusions:** The bioinformatic processing provides a reliable and quick solution to diagnose Maroteaux-Lamy syndrome, and it can be done even in early life stages, since the necessary genetic testing can be performed in the first week after birth. In conclusion, the solution described above ensures not only a cheaper, but also a more straightforward way of diagnosis, making it thereby an adaptable method in the future of precision medicine.

Keywords: Maroteaux–Lamy syndrome, arylsulfatase B, gene mutation, bioinformatic analysis

ETIOLOGIC AND CLINICAL FEATURES OF ACUTE INFECTIOUS DIARRHEA IN CHILDREN

Andreea-Marilena Sima[1], Magdalena Cozan[1], Felicia Toma[1], Anca Delia Mare[1]

[1]UMFST Tîrgu Mureş

Background: Acute infectious diarrheal diseases are a major problem of public health worldwide remaining one of the main causes of morbidity and mortality in low-income countries.The most frequent causes of acute diarrhea in infancy,toddlerhood and early childhood are mainly viruses,bacteria and less often parasites. **Objective:** The aim of this study was to analyze the etiologic,clinical and therapeutic aspects of acute infectious diarrheal diseases in children hospitalized in Targu-Mures. **Material and methods:** The retrospective-descriptive study included 143 children seeking care at hospital units in 2017 in Targu-Mures.It was designed to evaluate data regarding the clinical manifestations from admission, etiologic diagnosis performed by usual microbiological methods-stool culture, oriented mainly to identify *Salmonella*, *Shigella* and *Enteropathogenic Escherichia coli (EPEC)* and also antibiotic resistance profiling,etiologic treatment and disease evolution. **Results:** Acute diarrheal disease was most frequent in boys(59%), in the age group of 1-2 years(32%), which live in rural areas(62%), in summer-autumn season(60%).Symptoms were dominated by watery diarrhea (42%) accompanied by abdominal colic, dehydration(64%)-the majority of which being classified as grade II mild to moderate(63%).The most prevalent bacterial pathogens were *Salmonella spp*.(9.5%)-with a preponderance of *Salmonella group B* of 69% and *EPEC* (8.5%).Strains of *Salmonella group B* presented a higher antibiotic resistance compared to group D while EPEC strains demonstrated a sensitivity of more than 50% regarding the antibiotic test batteries used in our laboratory. **Conclusions:** The bacterial etiological spectrum of acute infectious diarrhea in children included in this study was dominated by pathogens from *Salmonella* and *EPEC* genera.More then half of the studied strains manifested sensitivity concerning antibiotics used in routine treatment.For prevention,awareness should be raised regarding the importance of strict adherence to basic hygienic and sanitary measures related to water and food.Moreover avoiding contact with the diseased and educating about the importance of breastfeeding in the prevention and

alleviation of infective diarrhea are just as significant.

Keywords: children, EPEC, diarrhea, Salmonella

THE SOCIO-DEMOGRAPHIC AND PSYCHOLOGICAL FACTORS THAT INFLUENCE MOTHERS' ATTITUDES TOWARDS THE COMPLEMENTARY FEEDING INITIATION

Andreea Maria Grama[1], Ioana Camelia Naste[1], Raluca-Diana Hagău[1], Eliza-Ioana Turnea[1], Monica Tarcea[1]

[1]UMFST Tîrgu Mureş

Background: Indicators such as age, education, occupation, family income, ethnicity, parity or mental health must be analyzed to indentify whether there are any correlations between them and the mother's decision to introduce complementary foods to babies. **Objective:** The aim of this study is to identify and evaluate the socio-demographic and psychological factors that influence mothers' attitudes towards the complementary feeding of children aged 0-36 months. **Material and methods:** A cross-sectional observational study was conducted în 2020, using a survey consisting of 47 questions that was applied between March and April 2020 through an online survey platform to mothers living in Romania, whose children are aged between 0-36 months. The total number of respondents was 1952 cases. **Results:** The complementary feeding was initiated too early for 4.31% (84) of children and late for 8.48% (166). The vast majority of mothers, 87.21% (1702) introduced complementary foods at recommended time. Mothers who were older, from rural areas, less educated, smokers, with low income, high BMI and depressive symptoms were the ones that chose early introduction of complementary feeding. Mothers who were primiparous and had at least one health problem or complication at birth were rather associated with late introduction of complementary feeding. In the same time, 86.34% (1201) of the respondents considered that they behaved correctly in terms of complementary feeding their children. **Conclusions:** The study confirms that maternal age, maternal education, smoking, environment, income, mother's BMI, primiparity and health status are still important predictors for complying/ non-complying to infant feeding recommendations.

Keywords: complementary feeding, socio-economic factors, infants, mothers

RISK EVALUATION OF EARLY COMPLEMENTARY FEEDING IN ROMANIAN INFANTS (0-12 MONTHS)

Ioana Camelia Naste[1], Andreea Maria Grama[1], Raluca-Diana Hagău[1], Monica Tarcea[1]

[1]UMFST Tîrgu Mureş

Background: A healthy diet begins early in life, by choosing the best moment for introducing complementary foods to infants. Even though there are differences between current guidelines regarding this aspect, they all agree that complementary feeding should not start earlier than 4 months. **Objective:** The aim of this study is the evaluation of socio-demographic factors related to mothers, which lead to an early complementary feeding and the effects this practice has on the infants' development. **Material and methods:** This is a quantitative study based on a survey consisting of 47 questions, which was applied online during March-April 2020, to mothers living in Romania, with children between the age of 0 to 12 months at the time of completing the questionnaire. **Results:** From the group of 880 respondents, 6.70% of mothers chose to start complementary feeding before their children reached 4 months old. The factors that are associated with early introduction of solids are: age, education, the source of information regarding complementary feeding, marital status and type of milk used for feeding the new-born babies. As for the effects on the health and development of the children that started with complementary food earlier than 4 months, the results were not eloquent since the age of the children is still very young. Out of 57 cases that started early complementary feeding, 35 (61.40%) cases exceeded the ideal weight, based on the graphics from WHO. **Conclusions:** Even though only 6.70% of the respondents declared that they started complementary feeding before 4 months, looking at the maternal factors that led to this, we can implement some public politics and information campaigns on this subject to decrease the frequency of mothers who start feeding solid foods to infants earlier than recommended.

Keywords: infant feeding, complementary feeding, nutrition

MORPHOLOGICAL AND IMMUNOHISTOCHEMICAL ASPECTS OF HELICOBACTER PYLORI DIAGNOSIS ON GASTRIC BIOPSIES

Raluca-Diana Hagău[1], Andreea Maria Grama[1], Ioana Camelia Naste[1], Sofia Teodora Hărșan[1], Eliza-Ioana Turnea[1], Ovidiu S. Cotoi[1], Jenő Róbert Bartha[1]

[1]UMFST Tîrgu Mureş

Background: Helicobacter pylori infection has always played an important role in the pathogenesis of chronic gastritis. **Objective:** The aim of this study is to establish a correlation between the presence of lymphoid follicles with germinal centers and the grade of inflammation with the presence of Helicobacter pylori microorganisms, and to examine the sensitivity of immunohistochemistry compared with Giemsa staining in detecting an active Helicobacter pylori infection. **Material and methods:** We performed a retrospective study of gastric biopsies, having analyzed the cases from the Department of Pathology at Clinical County Hospital of Târgu Mureș, from January 2019 to December 2019. **Results:** In our database we included 244 cases with gastritis, from which 51% (n=125) patients with active chronic gastritis with Helicobacter pylori infection, 32% (n=78) with inactive chronic gastritis and the rest of 17% (n=41) with ACG without H. pylori. 24,39% (n=10) cases with active chronic gastritis without HP, 16% (n=20) with active chronic gastritis with Helicobacter pylori infection, and 21,79% (n=17) with inactive chronic gastritis, showed the presence of lymphoid follicles with germinal centers. A high degree of inflammation was found in 29,27% (n=12) cases of ACG without HP, 58,40% (n=73) of ACG with HP infection and 10,26% (n=8) of ICG. Immunohistochemistry manages to determine 17,92% more cases of Helicobacter pylori infection than Giemsa staining alone. **Conclusions:** In our study we found that there is no correlation between the presence of lymphoid follicles with germinal centers and the presence of Helicobacter pylori organisms, but there is a significant link with the degree of inflammation found in the gastric mucosa specimens. Immunohistochemistry identifies a significantly higher number of cases of active Helicobacter pylori infection than Giemsa.

Keywords: Helicobacter pylori, Gastritis, Immunohistochemistry

A CONSTANTLY CHANGING SYSTEM: A ROLE FOR CLASS I MAJOR HISTOCOMPATIBILITY COMPLEX IN NEUROPLASTICITY

Andrei Prodaniuc[1], Daniela Constantinescu[1]

[1]UMF Gr. T. Popa Iaşi

Background: The Major Histocompatibility Complex designates both the group of genes and encoded proteins, the most notable of which are MHC-I and II transmembrane glycoproteins involved in antigen-presentation. Class I MHC is expressed on almost all nucleated cells, except for those comprising the immune privileged sites. Initially, the neurons of the central nervous system were categorised as such, however, recent advances in neuroimmunology enabled the identification of class I MHC on these cells. Indeed, the blood-brain barrier repels the immune elements, preventing any immune-mediated neurodegeneration, so MHC-I presence in the brain is not associated with antigen-presentation. **Objective:** The aim of our study was to describe the role of class I MHC expression in the neurons of the central nervous system with focus on its importance in the neuroplasticity process. **Material and methods:** We searched through various medical databases (ScienceDirect, PubMed, SpringerLink) by using the following keywords 'class I MHC', 'neuroplasticity', 'central nervous system' and identified 10 sources pertaining to our goal. All the studies used either immune staining or genetic methods as a part of their protocol. **Results:** In samples of nervous tissue exposed to a traumatic event or inflammation, MHC-I was highly expressed, indicating a role in synaptic stripping, thus preventing the extension of the lesion and slowing the healing process in pathologies such as stroke. Genetically-modified mice lacking MHC-I presented with discordances in axonal remodelling of retinal ganglionic cells of the geniculate lateral nucleus of thalamus. Blocking MHC-I or its ligands led to increased dendritic arborisation by reducing cofilin signalling pathway. **Conclusions:** Neurons of the CNS express MHC-I as a regulator of some neuroplastic processes. The interaction between MHC-I and its ligands down-regulates both synaptogenesis and dendritic arborisation, being a potent regulator of synaptic stripping, especially after neuro-traumatic events.

Keywords: class I MHC, Central Nervous System, neuroplasticity

ANTI-CGRP MONOCLONAL ANTIBODIES: AN INNOVATIVE PERSPECTIVE IN MIGRAINE PHARMACOTHERAPEUTICS

Mara-Sînziana Sîngeap[1], Andrei Prodaniuc[1], Tarțău-Mititelu Liliana[1]

[1]UMF Gr. T. Popa Iaşi

Background: Migraine is the second most common cause of headache, the pathogenesis of which implies the involvement of calcitonin gene-related peptide (CGRP) and other vasoactive molecules. There are several pharmacological therapies that have proven effective, such as triptans. However, targeted anti-CGRP monoclonal antibodies (Galcanezumab, Framanezumab) have confirmed to be therapeutically superior. By decreasing the formation of ligand-receptor complexes, they prevent vasodilatation for a significantly longer periods as compared with other antimigraine agents, thus enabling a better management of the disease **Objective:** The aim of our study was to assess anti-CGRP monoclonal antibodies efficacy in the treatment of migraine. **Material and methods:** We searched through various medical databases by using the following keywords: "migraine", "CGRP", "monoclonal antibodies" and identified 15 sources pertaining to our goal, which we have systematically reviewed **Results:** In patients suffering from chronic migraine, anti-CGRP monoclonal antibodies were demonstrated to reduce migraine episodes by 50% to 75%. Clinical trials showed increased efficacy of this treatment by comparison with placebo groups. Moreover, both Fremanezumab and Galcanezumab have exhibited therapeutic effects, even in patients who had not responded previously to other conventional therapy. Also, as compared to the traditional regimens, they presented with less serious side effects, the most common of which being a reaction at the injection site. Despite being exclusively administered by either subcutaneous or intravenous injection, which might be inconvenient compared to oral administration in other agents, they reached plasma concentration levels that made them suitable for monthly or quarterly administration. **Conclusions:** Anti-CGRP monoclonal antibodies provide us with a new potent way to treat headaches, having been certified to successfully reduce chronic migraine episodes, being effective even for patients' who did not previously respond to any other therapeutic approach. It might be expected that they would play a pivotal role in migraine pharmacotherapy, especially in patients with recurrent migraine refractory to other strategies.

Keywords: anti-CGRP monoclonal antibodies, chronic migraine, efficacy

THE IMPACT OF STUDENTS' LIFESTYLE UPON THEIR ANXIETY LEVEL

Sofia Teodora Hărșan[1], Raluca-Diana Hagău[1], Mihaela-Larisa Croitoriu[1], Monica Tarcea[1]

[1]UMFST Tîrgu Mureş

Background: Anxiety is one of the most common mental health problems in today's society and is on the rise. However, it remains under-reported, under-diagnosed and under-treated. The ability to cope with anxiety is essential to resist any challenge in academic life. The main purpose of this study was to identify the connections between lifestyle and environmental factors in predicting anxiety and stress among Romanian students. **Objective:** The objective of our paper was to determine whether or not there is a connection between everyday lifetyle of today's students and anxiety. **Material and methods:** A total of 217 Medicine students from 30 counties, aged between 18 and 29 years, participated in our study. The study took place between March and April 2020 and was a retrospective research based on an online questionnaire out of 77 questions, structured in three main parts: general data, lifestyle components and level of anxiety and stress measured using the Anxiety and Depression Stress Scale-21 (DASS-21). **Results:** The results showed the preference of the students for an unhealthy diet, with excess intake of fatty and high in sodium foods, along with a high consumption of sugary and caffeinated drinks and a sedentary lifestyle with only 36% of them doing moderate sports (approximately 3 hours per week). Calculating the anxiety score of each participant, we observed that 54% of them were suffering of anxiety, of which 17% obtained a result suitable for an extremely severe form, 6% for a severe one, 20% for moderate and 11% for a mild form of anxiety. **Conclusions:** A balanced lifestyle brings benefits both to physical and for mental health of an individual. The choices made daily, dictate the direction in which everyone's lifestyle is heading, and as a young student nowadays the management of time and healthy attitudes towards lifestyle are essential to their future health status.

Keywords: anxiety, lifestyle, student

THE QUALITY OF INFORMATION ABOUT CHRONIC LYMPHOCYTIC LEUKEMIA ON THE INTERNET

Ana-Mirela Nițu[1], Larisa-Andreea Pamfilie[1], Andrada Nechita[1], Theofana Mihăilă[1], Valentin Nădășan[1]

[1]UMFST Tîrgu Mureş

Background: Nowadays, the internet has become one of the most important source of health information, being used by many patients and their relatives. **Objective:** The goal of the study was to assess the quality of information about chronic lymphocytic leukemia on the Romanian and English websites as far as credibility, completeness and accuracy are concerned. **Material and methods:** The cross-sectional study included 25 Romanian and 25 English websites about chronic lymphocytic leukemia. These websites were selected from the Google's search results pages. Credibility, completeness and accuracy scores were computed on a scale ranging from 0 to 10. **Results:** The average credibility score for the Romanian websites was 4.2 (DS 2.0) and for the English websites was 6.4 (DS 1.6). The average completeness score was 5.0 (DS 2.0) for the Romanian websites and 6.1 (DS 2.0) for the English websites. The average accuracy score for the Romanian websites was 5.7 (DS 1.7) and for the English websites was 6.2 (DS 1.2). The p values for the comparison tests were 0.0005 for the credibility scores, 0.0529 for the completeness scores, and 0.1719 for the accuracy scores. **Conclusions:** Based on the results obtained, we concluded that the overall quality of the information about chronic lymphocytic leukemia, both on Romanian and English sites is modest. The English websites had higher scores, but the differences were statistically significant only in the case of the credibility scores. The use of the Internet in search of medical information should be done with caution. The users should visit several websites to get full and accurate information and ask advice from medical professionals.

Keywords: chronic lymphocytic leukemia, internet, information, quality

EVALUATION OF INDOOR ARTIFICIAL LIGHTING CONDITIONS IN A MEDICAL UNIVERSITY

Larisa-Andreea Pamfilie[1], Ana-Mirela Nițu[1], Valentin Nădășan[1]

[1]UMFST Tîrgu Mureş

Background: Artificial lighting in classrooms and laboratories has an important impact on learning performance. **Objective:** The primary objective of the study was to assess if artificial lighting conditions in the main building of the G.E. Palade University of Medicine, Pharmacy, Science, and Technology of Targu Mures (UMPhST) meet the requirements. The secondary objective was to test the accuracy of illuminance measurements performed with a mobile phone application. **Material and methods:** Artificial lighting conditions were assessed by measuring the illuminance in all accessible laboratories and classrooms located in the main building of UMFST in March 2020, using a Peak Tech 5165 digital luxmeter. Comparative measurements were performed in a subset of classrooms using the Lux Meter app installed on a Samsung A70 mobile phone. The number and position of the measurement grid points were calculated following the accepted methodology in the field. Average illuminance values were calculated for each room. Values measured with the professional lux meter and the mobile phone app were compared using student t or Wilcoxon test. **Results:** Artificial lighting was measured in 10 lecture rooms/halls, 8 laboratories, and 2 passageways. The average illuminance was 246 lx in the lecture rooms, 288 lx in the laboratories, and 143,5 lx on the passageways. In 2 of the 3 comparison tests, the values measured with the mobile app were significantly lower than those measured with the professional luxmeter ($p<0.0001$). **Conclusions:** Overall, artificial lighting in the main building of UMPhST did not meet the legal norms for lighting in classrooms. The accuracy of illuminance measurements performed with a mobile phone app was questionable.

Keywords: lighting conditions, illuminance, classrooms, medical university

WHY ARE MEDICAL STUDENTS STRESSED? SOCIAL MEDIA USE AND PHYSICAL ACTIVITY AS POTENTIAL COPING MECHANISMS

Roxana Bolchiș[1], Andrei Otto Mitre, Atamyrat Bashimov[1], Ovidia Ardelean, Maria Adriana Neag[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Medical students are known to encounter varied stressors. Social media use and physical activities could be coping mechanisms for lowering levels of psychological stress or indicators of high-stress levels. **Objective:** This study aims to analyze the stress levels of medical students and to assess a correlation between stress and physical activity, social media use, and gender. **Material and methods:** We conducted an anonymous cross-sectional questionnaire-based survey for medical students from the Universities of Cluj-Napoca and Iași. It consisted of 3 international questionnaires and scales: Social Media Disorder Scale, International Physical Activity Questionnaire, and Perceived Stress Scale. **Results:** Out of 115 participants, 22 from UMF Iasi and 93 from UMFIH Cluj-Napoca, 7.82% were first year, 18.26% second year, 26.08% third year, 14.78% forth year, 23.47% fifth year, 9.56 % sixth year students. There were 74.78 % females and 24.34 % males. High-perceived stress was reported in 36.52% of cases, moderate-stress in 56.52%, and low-stress 6.95%. Only 8 participants were diagnosed as disordered social media users. The physical activity was low in 14.78%, medium in 56.52%, high in 36.52% of participants. There was no correlation between stress and gender, stress and levels of physical activity, and nor were stress levels detected to be statistically different in preclinical(I-III) and clinical years (IV-VI) ($p>0.05$). There were, however, statistically significant different levels of stress when comparing years of study ($p=0.02$). The analysis of the Chi-squared test yielded a 0.08 p-value, meaning that there was no difference between the stress levels of participants from the Universities of Cluj-Napoca and Iași. Low and moderate stress counts were presented together due to the negligible number of low-stress participants. **Conclusions:** We conclude that medical students are more stressed in years II, III, IV, and VI and that other factors rather than social media use and physical activity influence stress among medical students.

Keywords: medical students, physical exercise, social media, stress

NOVEL THERAPEUTIC STRATEGY IN A RAT MODEL OF PERINATAL ASPHYXIA

Hanga Kelemen[1], Éva Mikics Phd[2], Kornél Demeter Phd[2]

[1]UMFST Tîrgu Mureş

[2]Institute of Experimental Medicine, Budapest

Background: Perinatal asphyxia (PA) is a one of the leading causes of neonatal morbidity and mortality worldwide. While severe cases of PA lead to serious neurodevelopmental deficits, mild and moderate forms cause long-term cognitive and psychiatric impairments, such as ADHD and autism spectrum disorder. Additionally, postasphyxic hypocapnia and brain alkalosis are strongly related to adverse outcomes in asphyxic neonates. **Objective:** We aimed (1.) to develop a noninvasive, mild to moderate PA model on rodents and (2.) to prevent the negative effects of hypocapnia and brain alkalosis on prefrontal and hippocampal brain functions by interfering with their emergence through the gradual restoration of normocapnia (GRN). **Material and methods:** Steady and intermittent noninvasive asphyxia was induced on P7 and P11 days old Wistar rats respectively by applying a mixture of 4-9% O_2/20% CO_2 for 15 minutes in normothermic conditions. In the following 30 minutes, a part of the group was provided a mixture of 21%O_2/5% CO_2 in order to gradually restore their normocapnic state (GRN), therefore avoiding their shift to an overcompensating hypocapnia. To assess the long-term neurological and cognitive effects, the rats participated in different motor, cognitive and behavioral tasks at the age of P33-P95. **Results:** We considered the PA insult protocol mild to moderate since none of the asphyxic rats presented locomotor deficits. While in the P7 model the asphyxic rats developed anxiety, learning impairments and attention deficits as young adults, the GRN group showed significantly better cognitive capacities. In the P11 model we observed a significant decrease in postasphyxic seizure activity in the GRN group and a negative effect of seizures on long-term impulsivity and response control. **Conclusions:** Our PA model caused long-term behavioral and cognitive deficits, however the graded restoration of normocapnia prevented the development of these impairments. Therefore, a clinical trial of this novel therapeutic strategy could be worth considering.

Keywords: perinatal asphyxia, neuroprotection, graded restoration of normocapnia, neurocognitive impairment

CORRELATIONS BETWEEN STRESS AND MENSTRUAL DISTURBANCES AMONG UMFST STUDENTS

Silvia Maria Lobonț[1], Ramona Teodora Cătană[1]

[1]UMFST Tîrgu Mureş

Background: Menstrual disturbances generally affect the daily activities of females and seem to be more prevalent amongst women that live in a stressful environment. **Objective:** The aim of this study was to identify the prevalence of menstrual problems (premenstrual syndrome, dysmenorrhea and menstrual irregularities) in young females students and to identify their association with stress. **Material and methods:** Data was collected from 152 female students from University of Medicine, Pharmacy, Science, and Technology of Târgu Mureș between March and April 2021 using a questionnaire-based survey. All students willing to participate in the study were invited to answer the questionnaire, which dealt with anthropometric data, socioeconomic data, and menstrual history in the last year, considering the Covid-19 pandemic. Psychosocial stress was assessed using Perceived Stress Scale(PSS) which split the participants into three groups of high, moderate and low perceived stress. Chi-square tests was used to identify a link between stress level and menstrual abnormalities. **Results:** We observed that out of the 152 students who answered the questionnaire, 60(39,47%) presented high perceived stress scores, while 82(53,94%) revealed moderate stress and 10(6,57%) low stress. Students who reported premenstrual symptoms, irregular cycles and dysmenorrhea severe enough to take medication had significantly higher mean PSS scores (p =0.001, respectively). Of the premenstrual syndrome symptoms the most common associated with high stress were: breast tenderness (69,1%), bloating (58,6%), food cravings (56,8%), tiredness (54,6%), depressed mood (50%), anxiety (45,4%), headaches (41,4%). We have also found that college girls that live in a hostel or rent had higher PSS scores (p=0.001) and present irregular menstrual cycles (40,78%) and a level of dysmenorrhea (67,1%). **Conclusions:** Stress in medical students can be associated with dysmenorrhea, irregular cycles and premenstrual syndrome. The results show that the management of these disorders should be given more attention with the available reproductive health care programs.

Keywords: stress, menstrual cycle, menstrual disorders

MORPHOLOGICAL CLASSIFICATION OF CELL TYPES IN THE RAT SUPERIOR COLLICULUS

Gabriela-Diana Chertic[1], Ionela Bianca Chertic[1], Razvan Candea, Tibor Szilágyi[1], Gytis Baranauskas[2]

[1]UMFST Tîrgu Mureş

[2]Another University

Background: The superior colliculus (SC) is a laminar, highly conserved midbrain structure, involved in several visual behaviors, such as saccadic eye movements, prey capture and fear responses. Besides, it plays a role in spatial attention and decision-making. Based on morphological features and molecular markers, neurons in the superficial layers of the rat superior colliculus are divided into groups, that have specific functions. **Objective:** This study aims to characterize the cells labeled by parvalbumin (PV), somatostatin (SOM) and neuronal nitric oxide synthase (nNOS) in the superficial layers of the rat superior colliculus based on their morphologic features, which may help to understand their neuronal function. **Material and methods:** We utilized virus injections in the rat SC containing PV and SOM promoters and immunohistochemical staining for SOM and nNOS. The prepared brain slices were photographed with a confocal microscope and the obtained digital images were used for the reconstruction of 185 PV virus-positive cells, 182 SOM virus-positive cells and 78 nNOS+ cells. Their spatial structure was analyzed using a feature set. **Results:** PV labeled cells showed a variety of morphology profiles. They were found to be members of the classes with a narrow-field vertical, horizontal or stellate morphology. SOM and nNOS labeled cells are mainly of narrow-field vertical (NFV) type (67%, respectively 62%). However, these SOM and nNOS NFV cells may be from different subclasses since they are distributed differently within SC. SOM virus-positive cells had a mean depth relative to sSC surface of 140 μm, while nNOS+ cells of 178 μm. **Conclusions:** These results are in correspondence with the data from the literature. Therefore, PV and SOM encoding viruses will be used to study the function of these cells.

Keywords: superior colliculus, PV, SOM, nNOS

STUDENTS ANXIETY LEVELS DURING COVID-19 PANDEMIC. A SMALL CHANGE THAT MAKES A BIG DIFFERENCE.

Bogdan Finascu[1], Septimiu Voidăzan[1]

[1]UMFST Tîrgu Mureş

Background: Data from previous outbreaks of MERS and SARS-COV revealed a predisposition for developing panic, obsessive behaviors, post-traumatic stress disorder (PTSD), depression, and anxiety in a significant percentage of people. **Objective:** We aimed to evaluate the levels of anxiety among the students, to analyze the correlations with certain factors that could lead to its onset, and to assess whether they have experienced consequences related to attention and concentration. **Material and methods:** To assess the objectives of our study, a cross-sectional study was conducted that included students from multiple university centers who answered a questionnaire consisting of 25 questions. **Results:** : Of the 1231 students who participated in the study. A number of 450 (36.5%) fall into groups with moderate (III) and severe (IV) anxiety, with a GDA-7 score greater than 10 ($p<0.001$). III and IV degrees of disease were identified more frequently in the age groups between 18-24, ($p = 0.04$). Over 80% of females were observed in groups with scores above 11, while males were more in scores below 5 ($p<0.01$). Of those with moderate or severe anxiety, 51% and 54.6%, respectively, did not feel comfortable, or felt partially comfortable, to communicate with teachers/colleagues only through online ($p<0.001$), and 53% (III), respectively 46.1% (IV) considered that they cannot graduate an online course without the help of a teacher ($p=0.01$). 82.6% (III) and 87.5% (IV) did not notice an improvement in university performance due to the transition to online education ($p = 0.44$). At the same time, 41.3% (III) and 51.3% (IV), are not being satisfied with their academic results. ($p <0.001$) **Conclusions:** About one-third of students were identified with moderate and severe anxiety during the COVID-19 pandemic. Early prevention measures should be considered in order to improve their quality of life, as well as their university performance.

Keywords: Covid-19, anxiety, students

CLINICAL - MEDICAL

HELPING THE RIGHT HEART IN AN OSTIUM SECUNDUM ATRIAL SEPTAL DEFECT: A CASE REPORT

Samuel Nistor[1], Raluca Șoșdean[1], Cristian Mornoș[1]

[1]UMF Victor Babeş Timişoara

Background: Atrial Septal Defect (ASD) is a Congenital Heart Disease found in approximately 40% of adults and the hemodynamic impact it generates depends mostly on the size. In some cases when the disease is severe, it causes signs and symptoms consistent with heart failure. After performing a thorough evaluation using modern Cardiac Ultrasound techniques, the patient may be treated using a revolutionary device called Atrial Septal Occluder which stops the communication between the atria and may improve heart function. **Objective:** The goal of our presentation is to highlight the importance of modern cardiac imaging techniques and how they are intertwined with the new devices available in the field of Interventional Cardiology. **Material and methods:** We present the case of a 25-year-old patient, investigated for exertional fatigue and dyspnea. The cardiac ultrasound showed a normal-sized Left Ventricle with preserved systolic function, but a dilated Right Ventricle with diastolic paradoxical movement of the interventricular septum secondary to a hemodynamically significant left-to-right shunt through an Ostium Secundum ASD. The congenital defect had an indication for closure. Transesophageal ultrasound with 3D reconstruction was performed for accurate measurement of the ASD's dimensions and margins in order to choose the best therapeutic approach. The results favored the percutaneous closure with a Septal Occluder over surgery, which was performed with a complete closure of the interatrial communication with no residual shunt. **Results:** The patient had a non-complicated evolution with full recovery. The postprocedural cardiac ultrasound showed a significant acute reduction in RV size and an improvement in contractility. There is no residual interatrial communication and also the heart failure symptoms resolved. **Conclusions:** New and improved cardiac imaging techniques result in an accurate diagnosis and precise treatment options specifically tailored to patients' needs, resulting in a better quality of life and sometimes even spectacular recoveries with optimal procedural timing.

Keywords: Adult Congenital Heart Defect, Right Heart Function, Cardiac Imaging, Percutaneous Closure

---

USEFULNESS OF HEMATOLOGICAL RATIOS AS PREDICTORS OF NEW-ONSET ATRIAL FIBRILLATION IN PATIENTS WITH ACUTE CORONARY SYNDROMES UNDERGOING PERCUTANEOUS CORONARY INTERVENTION.

Cătălin Andrei Zăgan[1], Mihai Șoimu[1], Theodora Benedek[1], Diana Opincariu[1]

[1]UMFST Tîrgu Mureş

Background: The hematological parameters may be used to evaluate the systemic inflammatory response and may serve as predictive markers in patients with acute coronary syndrome (ACS). Studies have shown that patients with ACS have an increased risk to develop new onset atrial fibrillation(NOAF), especially during percutaneous intervention. These ratios include neutrophil to lymphocyte ratio(NLR), platelet to lymphocyte ratio(PLR), monocyte to lymphocyte ratio(MLR) and lymphocyte to monocyte ratio(MLR). **Objective:** To assess if hematological reports can be a predictor for a NOAF in patients with ACS undergoing percutaneous revascularization (PCI). **Material and methods:** We included 153 subjects with ACS (STEMI, n=84; NSTEMI, n=37; UA, n=31) who underwent invasive coronary angiography and percutaneous revascularization (PCI), as well as complete clinical examination and laboratory testing for complete blood count (CBC) upon admission. The study end-point was the development of NOAF during hospitalization (n=13). **Results:** The study group was predominantly formed by males (66%), with an average age of 64±12 years. Higher levels of hematological reports were found in patients presenting NOAF: NLR (9,32±6,11 vs 4,730±3,44 p=0.02), PLR (190,7±67,02 vs 141±87.93 p=0.03), MLR (0,52±0,19 vs 0.39±0,23 p=0.04). Through multivariate analysis, only NLR was found as an independent predictor for NOAF (OR=1,415 95% CI=1,149 to 1,847 p=0.0025) with a cut-off value of 4,9, where the sensitivity (67%) and specificity (65%) were maximum (AUC=0.75 CI=0,6262 to 0,8890 p=0.03). Also, there were higher values of MLR in patients with STEMI and UA that had NOAF (STEMI 0.51±0.17 vs 0.41±0.21 p=0.0336 and UA 0.43±0.16 vs 0.33±0.25 p=0.031). This result has not been obtained on patients with NSTEMI in comparation with STEMI+UA (0.33±0.03 vs 0.38±0.24 p=0.069). **Conclusions:** Our study concludes that pre interventional elevated NLR, PLR and LMR ratios were associated with an increased occurrence of NOAF after PCI. These results support probably an inflammatory etiology NOAF. Further studies with larger numbers of

patients are needed.

Keywords: acute coronary syndrome, inflammation, hematological ratios, atrial fibrillation

ANTITHROMBOTICS – “AN ANCIENT PUZZLE STILL UNSOLVED “

Ioana Monica Furdui[1], Maria Cristina Tătar[1]

[1]UMFST Tîrgu Mureş

Background: Thrombosis, a major cause of morbidity and mortality is responsible for 1 in 4 deaths worldwide. It can occur in either arteries where is the most frequent underlying cause of myocardial infarction, ischemic stroke or in veins where the outcome is venous thromboembolism (VTE). **Objective:** To assess the frequence of new and old generation antithrombotics prescription in patients requiring these classes of drugs. **Material and methods:** The study included 359 patients (43.7 % females, 56.3 % males) diagnosed with coronary artery disease (CAD), atrial flutter (AF), atrial fibrillation (A Fi) , VTE, peripheral artery disease (PAD), carotid artery stenosis (CAS), prosthetic heart valves (PHV) admitted at the Second Medical Clinic Emergency Clinical County Hospital during 2020. We evaluated their demographic and clinical data: antithrombotic drugs, HAS-BLED and CHA □□□□□□□□ scores, international normalized ratio (INR), glomerular filtration rate (GFR), comorbidities. **Results:** From the total number of patients included in the study, 29.2 % were taking acetylsalicylic acid (ASA), 12.8 % Clopidogrel, 0.3 % Ticagrelor, 34.3 % vitamin K antagonist (VKA), 10.6 % Rivaroxaban, 3.6 % Dabigatran, 20,3 % Apixaban. Thromboembolic and bleeding risks were as follows : VKA (CHA □□□□□□□□ 4.56, HAS BLED 1.73, p <0.0001), Rivaroxaban (CHA □□□□□□□□ 4.84 , HAS BLED 2.40, p<0.0001), Dabigatran (CHA □□□□□□□□ 4.27, HAS BLED 2.0, p=0.0029), Apixaban (CHA □□□ □□□□□□ 4.60, HAS BLED 2.11, p<0.0001). **Conclusions:** Old generation antithrombotics were prescribed more frequently than the new ones. An explanation of this tendency could reside in the fact that clinicians feel safer to prescribe them because of the available antidotes in case of overdose and also they are cheaper, an important aspect for patients. Moreover, according to the trials that governed the launching of new oral anticoagulants, Rivaroxaban was the most frequently prescribed drug in patients with the highest cardioembolic and bleeding risks in real life as well.

Keywords: Antithrombotics, Vitamin K antagonists, New oral anticoagulants, Thrombosis

TOXOPLASMA GONDII SEROPREVALENCE IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION IN WESTERN ROMANIA

Cosmin Gheorghe Maciuceanu[1], Maria Alina Lupu, Angela Dragomir, Tudor Rares Olariu[1]

[1]UMF Victor Babeş Timişoara

Background: Toxoplasma gondii, an obligate intracellular parasite, causes infections in one third of the global human population. Limited information is available regarding the impact of T. gondii on patients with acute myocardial infarction. **Objective:** The aim of the present study was to determine the seroprevalence of T. gondii in patients with acute myocardial infarction in Western Romania. **Material and methods:** In this study were included 192 consecutive patients diagnosed with acute myocardial infarction and admitted to the Institute of Cardiovascular Diseases, in Timisoara, between August and September 2019. Serum samples were screened for T.gondii IgG and IgM antibodies using the PastorexToxo kit (Bio-Rad, Marnes-la- Coquette, France), according to the manufacturer instructions. Study participants were grouped into three age categories: 29-50 years, 51-70 years and 71-94 years. All study participants provided a written informed consent. **Results:** Of the 192 patients aged 29-94 years (mean=63.3years), T. gondii antibodies were detected in 93(48.4%). No significant diference in seroprevalence of T. gondii antibodies was found between females (50.7%, 36/71) and males (47.1%, 57/121)(p=0.655), between patients from rural area (56.6%, 47/83) and from urban area (42.2%, 46/109)(p=0.058). However, T. gondii seroprevalence increased with age and was significantly higher in patients aged 50-70 years(50.4%,57/113) compared to patients aged 29-50 years (25%,12/48) (p=0.003) and in patients aged 71-94 years (77.4%, 24/31) compared to patients aged 29-50 years (p<0.001). **Conclusions:** This report provides the first data regarding T. gondii seroprevalence in Romanian patients with acute myocardial infarction. Further studies should be performed to assess the epidemiological impact of T. gondii exposure in patients with heart diseases.

Keywords: Toxoplasma gondii;, acute myocardial infarction;, epidemiology.

MITRAL REGURGITATION – ETIOPATHOGENESIS, DIAGNOSTIC AND THERAPEUTIC IMPLICATIONS

Ana Maria Mitrut[1], Paula Maria Anderco[1], Oana Maria Stoia[1], Gabriela Eminovici[1]

[1]Facultatea de Medicină Victor Papilian Sibiu

Background: Mitral regurgitation (MR) is the most common valvular abnormality worldwide,affecting over 2% of the total population.Any structural or functional impairment of the mitral valve (MV) apparatus that exhausts MV tissue redundancy available for leaflet coaptation will result in MR. **Objective:** The present paper aims to determine the prevalence of MR based on age,the type,the severity of MR and the degree of damage to the left ventricle (LV). **Material and methods:** The present study is an observational clinical study,conducted between 2017-2019.The study included 378 patients hospitalized at the Emergency County Clinical Hospital of Sibiu,on the cardiology section,diagnosed with MR. General data were collected from clinical observation charts,and paraclinical examinations of hospitalized patient. For each patient included in this study we examined data related to age,type of MR (primary or secondary),the degree of MR (mild, moderate, severe) and the size of the LV. **Results:** Patients included in the study were between 29-94 years.Patients were distributed into the following groups according to their age :<45 years- 2.38%, 45-54 years-11.11%,55-64 years-21.43%,65-74 years -30.42%, ≥75 years-34.66%.From all 378 patients included in this study,200 had primary,organic MR and 178 had secondary MR.The percentage ratio was as follows: 53% organic vs. 47% secondary. Regarding the severity of MR,more than half 58% (219) had mild MR ,34% (127) had moderate MR,and 8% (32) had severe MR.From the echocardiographic evaluation of the LV dimensions determined by the planimetric method ,302 pacients had a LV <60 mm,and a number of 76 patients had dilated LV with dimensions greater than 60 mm. **Conclusions:** The prevalence of MR increases with age and an exponential increase was observed after the age of 65.The predominance of primary MR can be observed,without a significant differences between the two etiologies.The majority of patients had MR associated with a normal size of the LV.

Keywords: Mitral regurgitation,, degree of MR,, type of MR,, LV size .

UNMET GOALS OF ANTENATAL CORTICOTHERAPY IN PRETERM BIRTH

Rebecca Amalfi[1], Andrea Policastro[1], Carolina Robillotta[1], Teodora Diana Moldovan, Nicola Rojas[1], Lucian Puşcaşiu[1]

[1]UMFST Tîrgu Mureş

Background: Prematurity is the second-leading cause of death within 5 years from birth in Romania. Although survival rates are improved, preterm birth has both high human and economic costs. Significant long-term and life-long sequelae are represented by premature retinopathy, BPD, cerebral palsy and neurocognitive development delays. Antenatal corticotherapy is the treatment of choice in case of preterm birth as prophylaxis for prematurity-related complications. **Objective:** This study assesses the use of antenatal corticotherapy in a level III maternity unit in Romania. **Material and methods:** A complete course of antenatal corticotherapy is represented by either 2x12 mg Betamethason i.m with a spacing of 24 hours between the first and the second dose, or 4x6mg Dexamethason every 12 hours. Between January 1st 2018 and December 31st 2019, in the Department of Obstetrics and Gynecology of Târgu Mures Emergency County Hospital a total of 3147 births were registered, among those 430 were preterm birth. In our study we included all pregnancies with gestational age lower than 34 weeks and 2000g of weight, respectively. Therefore, pregnancies with GA above 34 weeks and/or weight at birth over 2000g were excluded, as well as antepartum deaths. A total number of 194 pregnancies were analyzed. **Results:** Out of 194 selected pregnancies, 72 women (37.11%) did not receive corticotherapy, 93 women (47.93%) received complete antenatal corticotherapy and 29 women (14.94%) received an incomplete course of antenatal corticotherapy. Factors associated with incomplete use of antenatalcorticotherapy were lack of antenatalcorticotherapy by the referring hospital and advanced labor at the time of presentation. **Conclusions:** Despite robust evidence and existing clinical guidelines, the use of antenatal corticotherapy doesn't meet its goal in real clinical setting. The results of this study confirm the need of definite diagnostic criteria in order to recognize the onset of preterm labor in time to administer a complete course of prophylactic antenatal corticotherapy.

Keywords: Antenatal corticosteroids, Prematurity, Complications of the premature neonate, Prematurity prophylaxis

A RARE MUTATION OF ATP7A IN A MENKES DISEASE CASE

Ioana Alexandra Tabusca[1], Roxana-Paraschiva Ciobanu[2], Corina Popovici, Antonia-Isabela Chirteș[1], Antonia Ionela Gianga[2], Diana-Laura Miclea[1]

[1]UMF Iuliu Haţieganu Cluj Napoca
[2]UMF Gr. T. Popa Iaşi

Background: Menkes disease is an X-linked recessive condition, caused by a mutation of the ATP7A gene. It has a prevalence of 1:300.000 new-borns. The main issue is maldistribution of copper, leading to neurological decline, seizures, hypotonia, slow growth and a characteristic sparse, easily breakable, tangled and light coloured hair. **Objective:** Our objective is to present the case of a male toddler with a very rare genetic condition and the significance of genetic testing for the diagnosis and management of these diseases. The particularity of our case is the discovery of a specific new pathogenic variant that had not been reported before. **Material and methods:** Our patient was brought in at the age of 1 year and 3 months. The patient's clinical exam revealed dysmorphic syndrome, delayed physical development, hypotonia, epilepsy and a weight deficit of 7000 grams. Low levels of copper and ceruloplasmin were detected upon serological testing. A cerebral MRI was performed, which showed findings compatible with Menkes disease. Subsequently, our patient was put on treatment with copper-histidine without a favourable evolution. **Results:** Genetic testing was conducted for our patient, his brother and mother. The pathogenic variant c.3868C>T (p.Gln1290*) was found, the first of its kind to be reported at the time. The mother is a carrier and our patient is her only child to have inherited the mutation. The mother's twin brother and an older sister have also been tested, however, the variant was not discovered in their case. **Conclusions:** Given a disease such as Menkes, with a life expectancy lower than 4 years, testing is necessary for diagnosis, management and counselling for future children. That is why we believe that genetic counselling plays a crucial role in understanding this disease, as well as managing the medical, psychological and family implications in order to find the best options for our paediatric patients.

Keywords: Menkes, copper, metabolism, ATP7A

WHEN VITAMIN D TURNS MALICIOUS

Ioana Alexandra Tabusca[1], Corina Popovici, Antonia Ionela Gianga[2], Diana-Laura Miclea[1]

[1]UMF Iuliu Haţieganu Cluj Napoca
[2]UMF Gr. T. Popa Iaşi

Background: Hypersensitivity to Vitamin D3, also known as cholecalciferol, is an extremely rare condition, that is most often underdiagnosed due to the clinical similarities to vitamin D3 toxicity. **Objective:** This paper aims to highlight the importance and impact of genetic testing in paediatric patients with nephrocalcinosis and a seemingly normal medical family history. **Material and methods:** Our patient is a 3 year old girl that came in our clinic due to severe abdominal pain. The ultrasound revealed multiple renal parenchymal calcifications, therefore certifying a nephrocalcinosis diagnosis. Upon a series of blood works and urine exams, the more common causes of this pathology, hyperthyroidism and vitamin D3 intoxication, were excluded. However, an abnormal synthesis of cholecalciferol was unveiled and suspicions of a possible vitamin D3 hypersensitivity arose. Therefore, genetic testing was performed, NGS specifically. Although having close family members with a history of renal lithiasis is fairly common, it turned out that both our patient's parents are carriers of a heterozygous, possibly pathogenic mutation. The mother is a carrier for SLC34A3_ex4 - c.304+2T>C and the father for SLC34A3_ex13 - c.1462G>C. Thus, our patient is the unfortunate carrier of a rare combination of SLC34A3 mutations, resulting in a rare case of vitamin D hypersensitivity. **Results:** Currently, she is under treatment with ketoconazole 9mg/kg/24h and follows a hyper hydrating, low calcium diet. **Conclusions:** Taking into consideration that vitamin D3 is commonly prescribed to children of young ages, one should take into account the effects that a hazardous mutation can have on its mineral metabolism.

Keywords: Vitamin D, hypersensitivity, genetic testing, mutation

IS THERE A LINK BETWEEN PERIODONTAL DISEASE AND CORONARY PLAQUE VULNERABILITY IN PATIENTS WITH RECURRENT CARDIOVASCULAR EVENTS?

Bianka Krisztina Benedek[1], Lukas Horvath[1], Andrea Borsos[1], Imre Sándor Benedek[1]

[1]UMFST Tîrgu Mureş

Background: Periodontal disease (PD) and atherosclerosis are both chronic inflammatory conditions which can favor the development of a recurrent cardiovascular event. Most often a cardiovascular event is initiated by the rupture of a vulnerable plaque. Though the link between PD and plaque vulnerability is not established so far. **Objective:** the purpose of the present study is to assess the link between the PD and coronary plaque vulnerability in patients with recurrent cardiovascular events. **Material and methods:** 52 patients with recurrent cardiovascular events were included in the study. A complete dental examination was performed in all patients and the total periodontal index (PI) was assessed according to the presence and severity of PD features - gingival index, plaque index, tartum index, furcation index, mobility, pocket depth, loss of attachment and Muehlemann index. According to the PI value the study population was assigned into two groups as follows: group 1 (n=26) with low periodontal index (PI) and group 2 (n=26) with high PI. In order to define a vulnerable plaque, the following features were quantified: napkin ring sign, low attenuation plaque, positive remodeling and spotty calcification. **Results:** A positive correlation between total PI and vulnerable plaques was observed ($p<0.01$, RR=1.52). Among PI, loss of gingival attachment ($p<0.01$) and Muehlemann index ($p<0.01$) were strongly associated with coronary plaque vulnerability features. **Conclusions:** : the present study shows a strong association between PD and coronary plaque vulnerability in patients with recurrent cardiovascular events. Even though there are multiple hypostasis regarding the association between plaque vulnerability and PD, further investigations are needed in order to establish the link between two the conditions.

Keywords: atherosclerosis, vulnerable plaques, periodontal disease, unstable angina

STIGMATIZATION OF SCHIZOPHRENIA PATIENTS IN MUREȘ COUNTY

Delia-Alexandra Sterpu[1], Cristian Gaboș-Grecu[1], Iosif Gaboș-Grecu[1]

[1]UMFST Tîrgu Mureş

Background: Schizophrenia represents a severe mental illness, where the aim of treatment regards not only the remission of psychotic symptoms but also the gain of social functioning. Stigmatization may be considered a modifiable risk factor that decreases the opportunities for reintegration. Negative beliefs and discrimination lead to poor outcomes and lower quality of life. **Objective:** We aimed to investigate the dimensions of stigma towards individuals with schizophrenia in Mureș County, as well as the associations with the outcomes and the socio-demographic data. **Material and methods:** We evaluated 17 stable patients with schizophrenia, aged 18-65, attending outpatient Psychiatric I Clinic. The Maristan stigma scale was applied in face-to-face interviews. All sublevels of scale, including informal social networks, social-institutional, health professionals, self-stigma and total score of scale were analyzed in GraphPad. The association between clinical data (years of illness, relapse, medication adherence), socio-demographic data and stigma scores were evaluated with the Mann-Whitney test and Spearman's correlation. **Results:** The mean stigma total score was 58,06%, with minimum 38,70% and maximum 75,57%. The highest score is represented by institutional stigma (61,61%) and the lowest score by health professional area (29,20%). Statistically significant differences were identified($p<0.05$) for informal stigma between those with or without an income. There was also a positive correlation between self-stigma and social stigma ($r=0,67$, $p=0.003$). No significant differences were noted between stigma and numbers of relapses, years of illness and medical adherence($p>0.05$). **Conclusions:** Findings suggest that the degree of stigma is elevated for those who do not have an income. Individuals with schizophrenia would be less stigmatized if government policy were supporting the development of rehabilitation programs and reintegration through paid work. High self-stigma may be both a cause or a consequence of high social stigma. A better understanding of stigma's effects is necessary for possible anti-stigma interventions.

Keywords: schizophrenia, stigmatization, reintegration, Maristan-Scale

CLINICAL AND EVOLUTIONARY PARTICULARITIES OF CHRONIC LYMPHOCYTIC LEUKEMIA

Caus Efimia[1], Robu Maria, Maria Robu[2]

[1]Universitatea de Stat de Medicină și Farmacie Nicolae Testimițanu

[2]USMF Nicolae Testimițanu Chișinău

Background: Chronic lymphocytic leukemia (CLL) is the second most common leukemia worldwile and also the most common among the elderly. In connection with the increasing trend in recent years of the incidence of CLL, the frequency of autoimmune and infectious complications, this pathology became a current problem in oncohematology. **Objective:** Determination of the frequency of chronic lymphocytic leukemia in different age groups and identification of clinical and evolutionary features. **Material and methods:** The clinical evolution was studied in 85 patients with CLL with age between 40 to 89 years old, who were diagnosed and are on record in the Hematology Department of the IMPS Oncological Institute during the years 2015-2020. The diagnosis was established based on the detection of leukocytosis with lymphocytosis in the general analysis of blood, myelogram and immunophenotyping. **Results:** It was determined that CLL developed more frequently in people whose age was between 60-69 years old (44.7%) followed by patients whose age was 70-79 years old and 50-59 years old (21.2% and 18.8%). Rarely LLC was diagnosed in people with age of 40-49 and 80-89 years old(5.9% and 9.4%, respectively). LLC predominated in men (60%). In women, LLC was found in 40% of cases. According to the Binet J. classification, stage A was determined in 53 (62.4%) patients, stage B in 32 (34.6%) cases. In 22 (41.5%) patients diagnosed in stage A, disease progressed to stage B within 3 to 36 months. From the group of patients diagnosed primary with stage B in 4 (12.5%) cases stage C have developed. Infectious complications were found in 15 (46.9%) patients with stage B. Autoimmune hemolytic anemia and autoimmune thrombocytopenia occurred in 17 (53.1%) cases. **Conclusions:** LLC developed more frequently in people with age between 60 to 69 years, mostly in men. Patients were most frequently diagnosed in stage A .

Keywords: chronic lymphocytic leukemia, autoimmune and infectious complications, lymphocytosis, Binet J. classification

PERCEIVED CONTRACEPTIVE SAFETY AS AN INFLUENTIAL FACTOR WHEN CHOOSING A CONTRACEPTIVE METHOD

Jennifer Messner[1], Andrea Policastro[1], Benedikt Johannes Wagner[1], Frederik Laier[1], Erika Bán[1]

[1]UMFST Tîrgu Mureş

Background: When choosing a contraceptive method, patients may have various reasons that influence the choice for a specific contraceptive method. Contraceptional safety should be an important factor in this context. **Objective:** Among other things, the study aimed to assess the importance of safety (with regards to prevention of pregnancy) as an influential factor when choosing a contraceptive. **Material and methods:** The cross-sectional study included 1055 participants. Data was collected using an online survey from November 2020 - February 2021. Descriptive statistics with cross tabulation analysis were performed and Chi-square as well as Kendall`s concordance test was calculated to compare between safest, already used and preferred contraceptive methods. **Results:** The average age of the respondents was 25-31 years. 21,4% of the participants were male and 78,6% female. 22,2% of the participants considered natural contraceptive methods as the safest contraceptive method, 19,6% the condom, 18,7% the diaphragm and 14,7%, coitus interruptus. Data analysis for formerly used contraceptive methods indicates that 29,7% of participants used natural contraceptive methods, 24,1% the condom, 22,5% the diaphragm and 8% the coitus interruptus method. The result for the preferred contraceptive method indicates that 36,6% prefer the condom, 21,6% the hormone pill, 7,8% coitus interruptus and 5,6% prefer the intrauterine contraceptive device. 8% of the participants did not use contraceptive methods. Kendall's Concordance test showed statistically significant differences (Chi square value = 0,073; p≤0,01) between perception of the safest contraceptive method and the formerly used ones. Kendall's Concordance test also showed statistically significant differences (Chi square value = 7,330; p≤0,01) between perception of the safest contraceptive method and the preferred one. **Conclusions:** Comparison tests revealed significant differences between perception of the safest contraceptive method and formerly used ones as well as the preferred one. According to these results, safety is not the most important factor influencing the selection of a contraceptive

method.

Keywords: Contraception,, Pearl-index,, Contraception choice

THE IMPACT OF COVID-19 PANDEMIC ON MENTAL HEALTH AMONG MEDICAL STUDENTS

Cristian Ioan Cîmpian[1], Dora Mihaela Cîmpian[2], Mara-Constantina Ilovan[1], Anca Cighir[3], Andreea Cimpoieru[2], Cristian Gaboș-Grecu[1]

[1]UMFST Tîrgu Mureş

[2]

[3]Emergency Clinical County Hospital of Targu Mures

Background: Viruses are reduced germs(nanometric dimensions), made of genetic material(RNA or DNA) coated by protein layers. Some viral particles present a higher potential to infect the Central Nervous System, influencing cognitive, perceptual, and affective functions. The actual pandemic is caused by a coronavirus infection(COVID-19) and it is characterized by severe acute respiratory syndrome(SARS), associated with ensued psychiatric morbidity. Furthermore, the ongoing global pandemic gives rise to traumatic psychological repercussions. **Objective:** The ground of this paper is to present the importance of the assessment of metal health in pandemic circumstances among medical students from UMFST of Târgu-Mureș and UMF Iuliu Hațieganu of Cluj-Napoca. **Material and methods:** This study included 136 participants from the mentioned universities, while the data was collected making use of an online questionnaire distributed using Google Forms. The questionnaire consisted in 27 questions, 14 of which belonging to the Hospital Anxiety and Depression Scale(HADS). The answers were analyzed using Microsoft Office Excel 2020. **Results:** A considerable percentage of respondents included in this study manifested the covid-19 infection(35,6%). Most of them presented a mild form of infection(64,6%), and 29,6% participants lost their family members. Many have been affected negatively on a social level, and a significant part have a high tendency of self-isolation. Following the symptoms evaluation related to anxiety, 18% are pathologically significant(11-21 points), and 21,4% of them are situated at borderline level(8-10 points). Symptoms of depression occur less frequently compared to anxiety symptoms, 8% of students are found in the pathological interval(11-21 points), and 20% are situated in the borderline interval(8-10 points). **Conclusions:** The covid-19 pandemic caused significant psychiatric and emotional repercussions among students. Symptoms form the anxiety spectrum have been predominantly noted, being most likely caused by a general panic, contextual experiences, and the near future uncertainty. It is essential to recognize the current mental status of the students for an adequate future management.

Keywords: COVID-19 Pandemic, HADS, Anxiety, Depression

INFANT OF DIABETIC MOTHER

Oana Adriana Matei[1], Marta Simon[1]

[1]UMFST Tîrgu Mureş

Background: Diabetes mellitus is a modern health problem with epidemic proportions, and given the impact it can have on the course of pregnancy, a special attention should be paid to this risk factor. **Objective:** Monitoring the newborn from the diabetic mother, establishing the complication rate compared to children born to the mother without diabetes. **Material and methods:** The study is a retrospective one, the data being collected from the records of the neonatology department of the Mureș County Emergency Clinical Hospital between January 2016 and December 2020. The study included 271 patients, divided into two groups depending on the presence or absence of maternal diabetes. Of the total participants, 35% (95 mothers) had a type of diabetes, either gestational or pre-existing diabetes, type 1 or 2. 176 women were included in the control group. **Results:** The rate of cesarean-section for the diabetic mothers is 58.94%, while the patients without diabetes have a rate of cesarean-section of 15.96%. Regarding macrosomia, the difference between the studied group and the control group is certain, macrosomia being much more common in pregnancies affected by diabetes (23.15% vs. 2.84%). 12.63% of children of diabetic mothers were admitted to the neonatal intensive care unit. Hypoglycemia was found in 23 (24.21%) of children from mothers with diabetic pathology, physiological jaundice - hyperbilirubinemia in 41 (43.15%) of them, and respiratory distress syndrome in 11 (11.57%) newborns, these three complications being frequently over-lapped in the same patient. Regarding the control group, only two children were admitted to the

intensive care unit for a moderate form of respiratory distress. **Conclusions:** Gestational diabetes remains a significant cause of morbidity in newborns, leading to increased hospitalization rates in intensive care units, prolonged hospital stays and higher incidences of macrosomia, hypoglycemia and neonatal respiratory distress syndrome.

Keywords: gestational diabetes, macrosomia, hypoglycemia, respiratory distress syndrome

---

CT IMAGING ASPECTS IN THE EVALUATION OF ABERRANT PULMONARY VENOUS RETURN

Felicia Goluș[1], Marian Pop[1]

[1]UMFST Tîrgu Mureş

Background: Congenital anomalies of pulmonary venous drainage are the result of an error in the embryonic development of venous structures and can occur in a variety of clinical forms in the pediatric population. The investigation of choice in assessing aberrant pulmonary venous return is pulsed Doppler echocardiography, although a compelling role in diagnosis is played by computed tomography, since the surgical correction of this malformation requires a good knowledge of anatomical structures and the relationships between them. **Objective:** The aim of this study consists in the evaluation of the types of aberrant pulmonary venous return, the drainage pattern of aberrant pulmonary veins and the presence of associated malformations. **Material and methods:** The study group consisted of 40 patients, aged between 1 day and 61 years, both males and females. The inclusion criterion in the study was the presence of total or partially aberrant pulmonary venous return documented by CT examination. Contrast CT examinations were performed using a Siemens SOMATOM As 64 slices CT scanner. **Results:** The supracardiac form was the most common in patients with partially aberrant pulmonary venous return and the cardiac form was more frequent in patients with totally aberrant pulmonary venous return. The most common associated congenital heart malformation was ASD (24 patients), followed by VSD (14 patients) and persistent arterial duct (9 patients). The left superior vena cava was present in 25% of cases and a collecting / vertical vein was noticed in 20 patients. A quarter of patients had heterotaxy syndrome. **Conclusions:** This study emphasizes the benefit of contrast-enhanced CT as a diagnostic tool in the anomalous pulmonary venous return and highlitghts its importance in revealing the presence of associated congenital cardiovascular malformations, which allows a complex and accurate approach to diagnosis and treatment.

Keywords: aberrant pulmonary venous return, CT, congenital cardiovascular malformations

---

ADDICTION: A PARALLELISM BETWEEN ANOREXIA NERVOSA AND DRUG ABUSE

Benedetta Casale[1], Cristian Gabos Grecu[1]

[1]UMFST Tîrgu Mureş

Background: Several factors make increasing complex the attempt to clarify what defines a "state of addiction", beyond the mere diagnosis of physical dependence. In the last decades, disparate psychological theories try to address the origin of addiction ranging from a defective prospective in which the addicted were described as a weak individual, to purely scientific approaches conceiving the addiction only as a brain disease. **Objective:** This review aims to define the main characteristics of addiction, as its compulsive pattern and the strong gratifications triggered by certain potentially harmful stimuli, and to highlight how drugs addiction and anorexia nervosa share those traits. **Material and methods:** data were obtained by studies published, in English language, in PubMeD database. **Results:** Epidemiological studies demonstrate the shared comorbidities, risks factors and aetiology between the two pathologies, that, from a neurologic point of view are linked from similar modifications in the reward system. Indeed, brain circuits belonging to limbic areas and to dopaminergic system are altered by addictive behaviour so that natural stimuli are not anymore perceived as strongly as was before the addiction onset and so that the absence of addiction leads to reduced dopamine discharge resulting in an anergic or even depressive state. **Conclusions:** The maladaptive pattern by which anorexic patients persevere in destructive behaviours and the pervasive way in which the disease alienates them from their social life is substantially similar to what happens with addicted patients. However, if in drug abuse the reward system is altered by the effects of the psychoactive drug, this is not true in case of anorexia nervosa in which the pathological gratifications arise mainly from the prolonged fasting and from the pervading desire of control on disparate aspect of their life, from the eating habits to the body shape

Keywords: Addiction, Reward system, Anorexia Nervosa, Druge Abuse

QUALITY OF LIFE OF ASTHMATIC PATIENTS IN THE TIME OF COVID-19 PANDEMIC

Alina-Cristina Muntean[1], Victoria Rus[1], Elena Gianina Moldovan[1]

[1]UMFST Tîrgu Mureş

Background: COVID-19 pandemic affects Earth's population on different levels that lead to negative psychological changes. SARS-CoV-2, represents an additional risk factor for exacerbations, both pathophysiological and emotional. **Objective:** The aim of the study was to determine the COVID-19 pandemic's effect on the quality of life of asthmatic patients. **Material and methods:** We conducted a form receiving 150 responses from asthmatic patients. The data was collected in November 2020 by means adapted with the ongoing restrictions. The survey consisted of questions regarding details about asthma, an asthma quality of life questionnaire, the implications of prevention regulations and the evolution of SARS-CoV-2 infection. **Results:** Most of the responders were 18-24 years old. Almost 70% suffer of allergic asthma, more than half having a good control of the disease. Less control comes with the concern that a possible infection with the new coronavirus would trigger an exacerbation (p=0.002). Regarding the AQOL, 38,7% of the respondents affirmed that their personal growth has worsened and it corelates with the negative emotional impact of the pandemic (p=0.0001). There is a strong correlation between leisure activities and social life(p=0.01). 63,3% feel more fear, tension and anxiety along with loss of yield and tiredness. People that suffered negative influence on their emotional status have additional trouble facing stressful situations (p<0.001). We found a correlation between alimentation and physical aspect(p<0.001). 99,3% of the patients wear masks even if more than half of them confirm that it worsens their symptoms. Despite that, 25,3% had contact with a positive person and 7,3% were confirmed positive. 90% used the treatment for their asthma, and helped ease the symptoms. **Conclusions:** We conclude that asthmatic patients suffer a decrease regarding their quality of life, not specifically because of their disease, but mostly because of the emotional effect of COVID-19 pandemic.

Keywords: asthma, COVID-19 pandemic, quality of life

A KILLER HIDDEN IN THE SHADOWS- THE CHURG-STRAUSS SYNDROME

Andreea-Voichița Slevoacă-Grigore[1], Mara-Sînziana Sîngeap[1], Oana Maria Bilan[1], Iulia Elena Mancas[1], Carmen Crizantema Volovăț[1]

[1]UMF Gr. T. Popa Iaşi

Background: The Churg-Strauss Syndrome, also known as eosinophilic granulomatosis with polyangiitis or EGPA, consists of small-to-medium-sized blood vessel inflammation, being associated with severe asthma and blood and tissue eosinophilia. EGPA is a vasculitis associated with antineutrophil cytoplasmatic antibodies (ANCA). It affects male and female populations in equal numbers; most cases occur in individuals aged between 30 and 50. The annual incidence is estimated to be 2.4 per million, but it is believed that it is often misdiagnosed. **Objective:** The aim of this case report is to highlight the laborious diagnosis process of the Churg-Strauss Syndrome and the importance of laboratory testing. **Material and methods:** Our patient is a 69-year-old male, who went to the Neurological Hospital, accusing of aphasia, motor coordination difficulties, and temporospatial disorientation. The patient is directed to the ER, where a number of diverse tests are conducted, thus excluding the patient as an emergency case. The patient is sent to the nephrology clinic, in the context of azotate retention. The patient has a history of numerous disorders including asthma, diagnosed in 2005, nasal polyposis, type 2 diabetes with polyneuropathy, polypoid rhinosinusitis, essential artherial hypertension, and atrial fibrillation, among others. **Results:** Clinical exam shows orthopnea, emphysematous thorax, bilateral rhonchi, diffuse abdominal pain, and facial spasms. First laboratory tests show high blood levels of creatinine and urea, a sign of kidney damage. Imagistic investigations show the presence of pericardic liquid right hilar calcification and reticular pattern. Further laboratory testing shows eosinophilia and the presence of p-ANCA. **Conclusions:** The patient presents the criteria for the Churg-Strauss Syndrom Diagnosis to be given: asthma, eosinophilia, polyneuropathy, and paranasal sinus abnormalities. Furthermore, the presence of p-ANCA strengthens this diagnosis hypothesis. The patient was, most likely, misdiagnosed in the past, and the syndrome went unnoticed for years; this shows the importance of complex laboratory testing and also an integrative symptom approach.

Keywords: Churg-Strauss syndrome, vasculitis, eosinophilic granulomatosis with polyangiitis, eosinophilia

CORRELATION BETWEEN SEVERITY OF CORONARY ARTERY LESIONS AND NT-PROBNP LEVELS IN ACUTE MYOCARDIAL INFARCTION PATIENTS

Maria-Andreea Micu[1], Irina Ioana Iurian[1], Andreea Botezan, Patrick Lazar Dominik Chiciudean, Lidia Iordache[1], Theodora Benedek[1]

[1]UMFST Tîrgu Mureş

Background: NT-proBNP is known as a sensitive indicator for the left ventricular disfunction. It has also been reported that the serum levels of NT-proBNP are increased during myocardial ischemia secondary to coronary artery disease (CAD) in patients with normal left ventricular function. However, NT-proBNP is not yet determined in clinical practice as a marker for atherosclerosis severity that correlates with the angiographic findings. **Objective:** The aim of this presentation is to evaluate the correlations between NT-proBNP levels and the severity of coronary artery lesions in patients presenting with acute myocardial infarction. **Material and methods:** NT-proBNP plasma levels were determined at admission for 49 patients diagnosed with acute myocardial infarction referred to coronary angiography. Patients were distributed in 3 groups in accordance to the severity of CAD (identified as the presence of >65% stenosis found in any coronary artery), as follows: group 1 - 1 coronary artery involved (n=24), group 2 - patients with 2 coronary artery disease (n=11) and group 3 - 3 coronary arteries involved (n=14). **Results:** NT-proBNP levels proved to be significantly correlated with the number of coronary arteries involved (r=0.541, p<0,0001). Significant difference was identified between 1-2 coronary vessel involvement (group 1 - 471.9±153.2 pg/ml vs. group 2 - 698.8±107.1 pg/ml, p=0.025), 1-3 vessel involvement (group 1 - 471.9±153.2 pg/ml vs. group 3 - 3459±909.3 pg/ml, p=0.0008), but also between groups 2 and 3 (group 2 - 698.8±107.1 pg/ml vs. group 3 - 3459±909.3 pg/ml, p=0.02). **Conclusions:** In patients with acute myocardial infarction NT-proBNP proved to be correlated with the severity of coronary lesions identified during the invasive angiographic procedure. NT-proBNP levels could be considered to predict the presence of severe CAD even before coronary angiography.

Keywords: Coronary artery disease, NT-proBNP, Acute myocardial infarction, Coronary angiography

ETIOLOGICAL SPECTRUM OF SURGICAL SITE INFECTIONS IN ABDOMINAL SURGERY RELATED PROCEDURES IN THE COUNTY EMERGENCY CLINICAL HOSPITAL OF TÂRGU MUREȘ: A RETROSPECTIVE CROSS-SECTIONAL STUDY

Benedikt Johannes Wagner[1], Edit Székely[1]

[1]UMFST Tîrgu Mureş

Background: Surgical site infections (SSIs) remain one of the largest entities of hospital-acquired infections worldwide. Continuous surveillance, prevention and know-how are the cornerstones of a possible reduction of SSIs. **Objective:** The aim of the study was to assess the etiological spectrum of SSIs related to abdominal surgery in the County Emergency Clinical Hospital of Târgu-Mureș. **Material and methods:** Clinical data, the presence of SSIs, microbiological results, corresponding surgeries performed, and antibiotic sensitivity data were analysed. The data were collected using the laboratory register and the H3 Concept Clinical Database of the microbiology department of the Târgu Mureș County Emergency Hospital in the period from 18/02/19 and 18/12/19. **Results:** During the studied period, a total of 399 abdominal surgery related samples were processed in the bacteriology laboratory. The average age of the patients was 57.8 years, 170 (42.6%) were female and 229 (57.4%) male. Within all analysed cases, 88 (22.1%) were identified as SSIs according to the European Centre for Disease Prevention and Control definition. Of these SSIs, the largest proportion derived from small and large bowel surgery (40.9%) as well as from abdominal cavity interventions which excluded enterotomy (25.0%). A total of 137 pathogens were identified and in 5 samples no bacterial growth was detected. The SSI-causing pathogens were mainly Enterobacterales, representatives of the Gram-negative bacteria, accounting for 37.3% of all pathogens. Enterococci, together with Staphylococcus aureus, were the most common Gram-positive bacteria with 13.4% and 4.2%, respectively. Antibiotic susceptibility tests revealed that 40.0 % of all Enterobacterales were extended-spectrum-beta-lactamase-producing (ESBL) strains and 2.2% were carbapenemase-producers. **Conclusions:** As already known among specialists, Enterobacterales are the main cause of abdominal SSIs. This applies also to the County Emergency Clinical Hospital of Târgu Mureș. It is important to note that an increased proportion of all Enterobacterales are ESBL producers, which should be taken into account when considering antibiotic therapy.

Keywords: Abdominal Surgery, Surgical Site Infection, Wound Infection, Hospital-acquired Infection

VAGINAL BIRTH AFTER CAESAREAN SECTION – AN EUROPEAN COMPARISON

Antonia Blau[1], Theodor - Șerban Barna[1], Mira Sandersfeld[1], Lucian Puscasiu[1]

[1]UMFST Tîrgu Mureş

Background: Within the past decades the number of caesarean sections significantly increased. In 2015 the WHO stated that "the ideal rate of caesarean section" lies between 10-15%, because a rate beyond that is not linked to a decrease in newborn and maternal mortality rates. This leads to a bigger cohort of women who have a scared uterus, which is a risk factor for intrapartum complications like uterine rupture in a further attempt of vaginal birth after caesarean section (VBAC). **Objective:** The aim of this paper is to compare the success rates of having a vaginal birth in patients who previously had a C-section among different European countries. **Material and methods:** We compared data from 3 EU-countries (Ireland,Italy and Germany) with data from our Level-III-Maternity-Unit, for the same period of time (2years): from January 1st2018 to December 31st2019. **Results:** The comparison group consisted of 790patients, of whom 387(49,0%) gave birth in Germany, 145(18,4%) in Italy and 258(32,7%) in Ireland. The overall success rate within this group for VBAC was 74,6%. During the given time period the total number of 3477 births and 1060 C-sections were recorded in our Level-III-Maternity-Unit. The total success rate of VBAC in our clinic was 29,0%. Indicators for success in the comparison group were: a previous vaginal birth, a lower birth weight infant, spontaneous rupture of the membranes and a short labour duration. While our group was most successful in case of a younger maternal age and a previous vaginal birth. The infant birth weight and a lower maternal BMI had no significant influence. In contrast to that the C-section rate in women from Germany, Italy and Ireland is 25,3%, while in our Level-III-Maternity-Unit the rate is at 71,0%. **Conclusions:** The Level-III-Maternity-Unit in Târgu Mures Romania has a lower success rate for VBAC compared to its fellow European countries. Consequently further research is needed.

Keywords: Vaginal birth, Caesarean section, Vaginal birth after caesarean section, VBAC

DYSBIOSIS IN IBD PATIENTS AND THE RESULTS OF THE FECAL MICROBIOTA TRANSPLANTATION- SYSTEMATIC REVIEW

Carolina Robillotta[1], Michela Parente[1], Rebecca Amalfi[1], Nicola Rojas[1], Andrea Policastro[1], Ecaterina Daniela Dobru[1], Kinga Noemi Szekely[1]

[1]UMFST Tîrgu Mureş

Background: Among the possible triggers, intestinal microbiota is associated with the development and maintenance of chronic inflammation in IBD. Starting from this concept, a series of studies have been performed in order to highlight FMT as treatment option for IBD. **Objective:** This review aims to analyze studies performed on FMT in patients with ulcerative colitis and/or Crohn's disease, focusing on the rate of success of FMT and the following modification of the fecal microbiota in the recipient. **Material and methods:** Data were obtained by studies published, in English language, in Pubmed database from 2015 to 2021, using the following inclusion criteria - patient >18 y.o., documented UC/CD, active disease, previous medical treatment failure, respectively exclusion criteria as: severe co-morbidities, immunocompromised patients, use of antibiotics and/or probiotics in the last 3-6 weeks, colectomy, ileojejunostomy, pregnancy, undetermined colitis, colorectal malignancy, fulminant colitis, active Clostridium Difficile infection or other active intestinal infections. Given these criteria 27 studies were included, with a total of 1013 patients. **Results:** Clinical remission was achieved in 23% of patients and clinical response in 25% of patients. Higher rate of success occurred in patients with UC obtaining 28% of clinical remission and 26% of clinical response, compared to 16% of clinical remission and 24% of clinical response of CD patients. Fecal microbiota alterations were recorder, in IBD patients a common pattern observed was an increase in Enterobacteriaceae and a decrease in Faecalibacterium prausnitzii, Bacteriodes and Bifidobacterium. **Conclusions:** The FMT for IBD treatment is still a new procedure. Several factors have been included in the causes of IBD but the one that can still be investigated is the fecal microbiota. The re-establishment of the fecal microbiota balance it is a new potential clinical approach for patients with IBD.

Keywords: IBD, FMT (fecal microbiota transplantation), Crohn’s disease, ulcerative colitis

DETERMINATION OF CHITINASE 3-LIKE 1 SERUM TITERS IN MULTIPLE SCLEROSIS PATIENTS TREATED WITH NATALIZUMAB

Roxana Maria Stanciu[1], Rodica Ioana Bălașa[1], Laura Iulia Bărcuțean[1]

[1]UMFST Tîrgu Mureş

Background: Biomarkers for multiple sclerosis(MS) can provide information on the course of the disease activity and treatment response. Chitinase 3 -like 1(CHI3L1) is a promising biomarker in MS, reflecting inflammation and astrocyte response in central nervous system lesions. **Objective:** The aim of the study was to determine the serum titers of CHI3L1 in patients with MS treated with Natalizumab and to establish whether there is a correlation between CHI3L1 and monitoring of MS under treatment. **Material and methods:** Serum CHI3L1 levels were determined by enzyme-linked immunosorbent assay(ELISA) in 63 patients with relapsing-remitting MS treated with Natalizumab. Spearman correlations and Student-t test were used to investigate the association between CHI3L1 levels and demographic data, MS onset, number of relapses, disability progression on Expanded Disability Status Scale(EDSS) and treatment response. **Results:** Serum CHI3L1 titers were significantly higher in female patients and in those who were older at the time of onset of the disease. Moreover, the CHI3L1 levels increased with the age of the patient. In contrast, no significant differences were detected between serum levels and number of relapses, EDSS or treatment response. **Conclusions:** Higher CHI3L1 levers are associated with female gender, advanced age and later onset of the disease. Serum CHI3L1 titers was not correlated with disease activity and tratment response, further research is needed to show the role of CHI3L1 in patients treated with Natalizumab.

Keywords: multiple sclerosis,, chitinase 3-like 1,, Natalizumab treatment

ADDICTIVE BEHAVIOR IN THE STUDENT POPULATION DURING THE PANDEMIC

Tudor Şuteu[1], Ana Vladescu[1], Aurel Nireştean[1], Emese Lukacs[1]

[1]UMFST Tîrgu Mureş

Background: In the last year, coffee consumption has been influenced by both personality traits and the pandemic context. Discovered in the middle of the 15th century, coffee became one of the most widespread beverages in the world. Due to its stimulating effects on the nervous system it is often used among students. **Objective:** The aim of the study was to analyze the changes in coffee consumption induced by the epidemiological context and the relationship between them and the dimensions of students' personality. **Material and methods:** To achieve the proposed goal we used a questionnaire distributed on social networks and completed anonymously and voluntarily by enrolled students in UMFST Târgu Mureș. The data were collected in the period January - April 2021. **Results:** The study included 110 students, of which 81.8% were female and 18.2% male aged between 20 and 35 years. 85% of the respondents stated that they were coffee consumers even before the pandemic and of these 78.5% stated that they were daily users. Of the 85% coffee consumers, 31.18% said they increased the dose consumed during the pandemic. The most common causes cited by students for increasing their coffee dose were lack of other activities and stress. Following The Big Five personality traits, we analyzed the responses of students who increased their caffeine dose during the pandemic. the results were: 55.17% have a low degree of openness, 82.75% have a high degree of conscientiousness, 62.06% have a low degree of extroversion, 79.31% have a high degree of agreeableness, 68.96 have high degree of neuroticism. **Conclusions:** The analysis between personality traits and changes in coffee consumption during the pandemic revealed that students who increased the dose consumed had a high level of conscientiousness, agreeableness and neuroticism and a low degree of openness and extroversion.

Keywords: coffee, pandemic, personality traits, students

AN EVALUATION OF INTERPERSONAL RELATIONSHIPS IN PATIENTS WITH PARANOID SCHIZOPHRENIA

Andrada Corina Lupșe[1], Gabriela-Elena Buicu[1]

[1]UMFST Tîrgu Mureş

Background: Schizophrenia is a complex psychiatric disorder, with a heterogenous character, manifesting itself in various manners at a cognitive and behavioral level, altering ones perception, thought process, emotions and behavior, as well as ones interpersonal relationships. **Objective:** The aim of the present study was to evaluate the impact of schizophrenia regarding patients' interpersonal relationships as well as their adjustment to the social environment. **Material and methods:** Interviews were conducted with 25 patients diagnosed with paranoid schizophrenia, hospitalized in Cavnic Psychiatric Clinic in Maramures County between the months of February and April 2021. The Positive and Negative Syndrome Scale and Global Assessment of Functioning Scale were applied, together with a line of questioning regarding social adjustment, relationship status and habitual behavior. Patients' information were analyzed from medical charts, extracting demographic data, administered medication as well as patients' compliance to it. **Results:** The average age of onset for the patients is 25,2, out of which 78,26% had a typical age of onset, while 21,74% had a late onset, with 74% coming from an urban environment. 61% of the patients were given antipshychotic treatment orally, while 39% are having intramuscular injections, with only 65,2% of the patients being compliant to the treatment. The GAFS scale showed a score of ≤50 in 60,86% of the patients, while the PANS Scale revealed that 60,8% had a total P score>20, 47,8% had a total N score>22 and 86,8% had a total G score>40. 82,6% report that they had no close friends or romantic relationships after the onset of the disease. Out of 73,92% who had a job before the onset, 94,11% could not keep it any longer after the onset. **Conclusions:** Most patients showed an increased level of deterioration in their interpersonal relationships after the onset of the disease, as well as keeping a job or integrating themselves in society.

Keywords: schizophrenia, behavioral disorder, interpersonal relationships

PROCEDURE-RELATED RISK FACTORS ASSOCIATED WITH POST-ERCP PANCREATITIS- A SYSTEMATIC REVIEW

Rusu Roberto George[1], Daniela Dobru[1], Crina Fofiu[1]

[1]UMFST Tîrgu Mureş

Background: As the indications and capabilities of ERCP are evolving, one of the main complications of it remains the post-ERCP pancreatitis which was shown to be associated with a significant mortality rate and hospitalization days. **Objective:** The aim of this systematic review is to answer the question if there are any procedure-related risk factors associated with post-ERCP pancreatitis. **Material and methods:** We researched PubMed to identify papers dealing with patients with post-ERCP pancreatitis. The initial findings showed a total number of 561 unique studies, out of which 98 fit the inclusion-exclusion criteria and underwent screening, and 28 remained eligible for in-depth analysis. In the end, 6 studies were selected for the review. **Results:** The 6 studies included a total number of 4072 patients who underwent diagnostic or therapeutic ERCP, of which 233 manifested post-ERCP pancreatitis, meaning 5.72%, incidence ranging from 3,74% to 14.3%. Two of them suggested that inadvertent cannulation of the pancreatic duct is relevant in high risk-patients, but not in those who undergo ERCP for the first time. Biliary stent placement was shown to be a risk factor, although one of the studies showed no association if the technique used was double-guidewire cannulation. Two of the studies included indomethacin prophylaxis and showed conflicting results towards the cannulation attempts, although one of them suggested a larger overall number of procedure related risks in patients with pancreatitis. Contradicting results were shown in case of precut sphincterotomy, balloon dilatation and cannulation time. Needle knife papillotomy and double-guidewire cannulation were not found as risk factors. **Conclusions:** Post-ERCP pancreatitis maintains a significant complication amongst different types of patients, but there is still the need of studies to be conducted in order to fully comprehend the risk factors. While some techniques are ruled out as risk factors, many controversial results have been found.

Keywords: post-ERCP pancreatitis, PEP, risk factor, procedural-related

PERSISTENT INFLAMMATORY STATUS IN HYPERTENSIVE PATIENTS WITH MAJOR ADVERSE CARDIOVASCULAR EVENTS

Andrea Borsos[1], Bianka Krisztina Benedek[1], Lukas Horvath[1], Imre Benedek[1]

[1]UMFST Tîrgu Mureş

Background: In recent years the link between chronic inflammation and major adverse cardiovascular events was intensely studied. Even though high blood pressure accelerates atherosclerosis progression and increases the risk of acute coronary syndromes and stroke, the relationship between high blood pressure and systemic inflammation remains unclear. **Objective:** the purpose of the present study is to assess the link between the persistent inflammatory status and high blood pressure in patients with major adverse cardiovascular events. **Material and methods:** : 152 patients with major adverse cardiovascular events were divided into two groups: HBP - 85 patients with high blood pressure and NBP - 67 patients without high blood pressure. For all patients, peripheral venous blood samples were collected at baseline in order to assess IL6, hsCRP, ICAM, VCAM, MMP-9, E-Selectin, P-selectin and sST2 serum levels. **Results:** A higher concentration of IL6 was observed in HBP compared with NBP (p=0.04). Also, baseline hsCRP was significantly higher in patients with high blood pressure compared to the normotensives (p=0.03). No significant difference was found regarding VCAM, ICAM, MMP-9, E-Selectin, P-Selectin between the two groups (all p>0.05). **Conclusions:** In patients with major adverse cardiovascular events, high blood pressure is associated with IL-6 and hsSRP, two of the most common used inflammatory markers in clinical practice. Even though the link between chronic inflammation and major adverse cardiovascular events is well known, the association between inflammation and high blood pressure demonstrated by the present study needs further investigations.

Keywords: inflammatory, hypertensive, cardiovascular, high blood pressure

RISK FACTORS INVOLVED IN TRIGGERING ACUTE PANCREATITIS -A META-ANALYSIS OF THE PUBLICATIONS FROM THE LAST 5 YEARS ON THE PUBMED WEBSITE

Florina Larionesi[1], Simona-Maria Bățaga[1]

[1]UMFST Tîrgu Mureş

Background: Acute pancreatitis is one of the most common gastroenterological emergencies, being an inflammatory condition of the pancreas that can be present under different degrees of severity, based on a diverse etiological palette. **Objective:** Performing a meta-analysis helps us to establish a clinical trial management as correct as possible, and to determine an etiological diagnosis, which is essential for developing an appropriate treatment. **Material and methods:** This work is a meta-analysis of the studies published in the last 5 years on the PubMed portal. The phrase "acute pancreatitis" AND "etiology" was used as a search term, to which Meshes were added, such as: - date of publication (last 5 years), - the article publication language (English), -species of those included in the study (to be exclusively human). The resulting data are expressed as a percentage. **Results:** From the 212 analyzed websites, which met the inclusion criteria, after their analysis and interpretation, we identified a number of 25 etiologies. The resulting sample consists of several types of studies. According to the place of publication, most studies were conducted in the United States (121 studies), followed by Asia (58 studies), Europe (32 studies), and only one study was published in Africa. The biliary etiology is the most common (47 studies), then hypercholesterolemia (45 studies), followed by alcohol (39 studies). A number of 5 studies show the presence of acute pancreatitis following the Covid-19 infection. **Conclusions:** Establishing the etiologies in descending order of the number of studies in which they appear in this study, does not coincide with their incidence in the literature. This difference can originate from the fact that in the last five years more studies have been reported with new, unusual causes, compared to the "traditional" ones, which were no longer the object of current studies, being already well known and accepted in the literature.

Keywords: acute pancreatitis,, alcohol consumption,, gallstones,, hypercholesterolemia,

HYBRID CARDIAC IMAGING IN MYOCARDIAL INFARCTION PROGNOSIS

Lukas Horvath[1], Bianka Krisztina Benedek[1], Imre Benedek[1]

[1]UMFST Tîrgu Mureş

Background: Innovation in cardiac hybrid imaging can improve accuracy in diagnosis and prognosis of cardiovascular disease, which is well known as one of the highest mortality diseases. **Objective:** The aim of this study was to demonstrate the association between coronary plaque vulnerability, systematic inflammation and myocardial viability in patients with recent myocardial infarction. **Material and methods:** Material and methods: We included 45 patients, with 1 month myocardial infarction, who underwent CCTA and CMR acquisition to generate a hybrid fusion imaging model. Based on noninvasive imaging we determined plaque vulnerability markers (positive remodeling, spotty calcification, napkin-ring sign, low-attenuation), then we divided the study population in 3 groups: Group 1- without plaque vulnerability markers (15%); Group 2 - <=2 plaque vulnerability markers (60%); Group 3: >2 plaque vulnerability markers (25%). **Results:** Results: Between the groups there is no statistically significant difference regarding the Syntax score (p = 0.7), and the Ca- score (p = 0.4). The infarct size (based on CMR examination) (p= 0.007), the Duke jeopardy score (based on CCTA examination) (p = 0.01) and inflammatory biomarkers (collected in day 1 after the acute event) (hs-CRP p=0.007; MMP-9 p = 0.038) demonstrated a significant correlation with plaque vulnerability. **Conclusions:** Conclusion: Non culprit coronary plaque vulnerability evaluated using hybrid imaging tools was directly correlated with infarct size mass and with the level of inflammatory biomarkers assessed in the peri acute period of the coronary event.

Keywords: Hybrid, myocardial infarction, cardiac imaging, CCTA

THE EVOLUTION OF RT-QPCR TESTING FOR SARS-COV-2 DETECTION IN TÂRGU-MUREȘ COUNTY EMERGENCY CLINICAL HOSPITAL`S CENTRAL LABORATORY

Silvia Bleahu[1], Andrea Bereczki, Oana Roxana Oprea, Krisztina Eszter Vas, Valeriu Moldovan, Minodora Dobreanu[1], Edit Székely[1]

[1]UMFST Tîrgu Mureş

Background: In late 2019, a novel coronavirus known as SARS-CoV-2 emerged in China, causing an epidemic of novel coronavirus disease-2019 (COVID-19). On the 11th of March 2020, the World Health Organisation declared COVID-19 a pandemic. Real-time reverse transcription polymerase chain reaction (RT-qPCR) has been and continues to be the reference diagnostic method for COVID-19. **Objective:** Our aim was to compare the SARS-CoV-2 RT-qPCR test results reported by the central laboratory of the Târgu-Mureș County Emergency Clinical Hospital (SCJU), with the public data on SARS-CoV-2 RT-PCR testing in Mureș County and in Romania. **Material and methods:** Data concerning SARS-CoV-2 RT-qPCR testing in SCJU's central laboratory were retroactively compared with public data on SARS-CoV-2 RT-PCR testing in Mureș County and Romania. For each month, the average number of tests performed daily was calculated along with the average percentage of daily positive results. Month-to-month differences in % of positive results were analyzed. Our laboratory's monthly average positive results were compared with the corresponding data reported at local and national levels. **Results:** Between June 2020 and April 2021, 29553 SARS-CoV-2 RT-qPCR tests were performed in SCJU's central laboratory. Statistical analysis showed a significant month-to-month increase in the % of positive results between June and November 2020, followed by a significant decline between November 2020 and February 2021, and an ongoing second peak, starting from March 2021. A high positive correlation was found with data reported nationally, regarding the average number of tests performed monthly (r=0.77, p=0.005) and the monthly % of positive results (r=0.88, p=0.0003). For monthly positive test results, the correlation between our data and local data from Mureș County was very high (r=0.98, p<0.0001). **Conclusions:** The number of performed RT-qPCR tests and % of positive test results in SCJU's central laboratory correlate well with local and national data, reflecting the evolution of the COVID-19 pandemic in our country.

Keywords: SCJU Targu Mures, COVID-19 pandemic, SARS-CoV-2, RT-PCR test

CIRCULATORY INFLAMMATORY BIOMARKERS PREDICT 1 YEAR MACE RATES IN PATIENTS WITH REVASCULARIZED ACUTE MYOCARDIAL INFARCTION

Ahmad Kassas[1], Lukas Horvath[1], Bianka Krisztina Benedek[1], Andrea Borsos[1], Imre Benedek[1]

[1]UMFST Tîrgu Mureş

Background: Cardiovascular disease is one of the leading causes of death, but there are no sufficient data about recurrent events after an acute myocardial infarction (AMI). We aimed to highlight the role of inflammatory biomarkers in predicting of 1-year major adverse cardiovascular events (MACE). **Objective: Material and methods:** In this study we included 225 patients with ST segment elevation or non-ST elevation acute myocardial infarction (STEMI and nonSTEMI), who were revascularized percutaneously with coronary stents. For all included subjects, blood samples were collected at 1 hour after PCI, to determinate serum levels of inflammatory biomarkers (Hs-CRP, MMP-9, IL-6, I-CAM, V-CAM and E-selectin). The primary end-point was the 1-year MACE rate. The secondary end-point included the occurrence of acute phase complications during hospitalization. **Results:** The rate of MACE occurrence at 12 months was 24.88% (n=56). The secondary end-point was present in 30.66% (n=69), the most frequent acute phase complication was atrial fibrillation (17.33%, n=17). We divided the study population in two groups: Group 1: with MACE (A: STEMI (n=34), B: nonSTEMI (n = 22), total 56); Group 2 - without MACE (A: STEMI (n = 131); B: nonSTEMI (n= 38), total 169). Serum levels of hs-CRP (p=0.03), I-CAM (p=0.0003) and MMP-9 (p=0.0001) were significantly higher in MACE patients, but there was no correlation between these serum biomarkers and the occurrence of in hospital complications. There was no significant difference between the MACE and non-MACE group in relation to the level of IL-6, V-CAM or E-selectin. **Conclusions:** Inflammatory biomarkers (hs-CRP, MMP-9, I-CAM) monitored in an acute phase of AMI presented the most powerful predictors for recurrent events at one year after revascularization. These serum parameters may serve as additional prognostic markers in patients with acute coronary syndromes.

Keywords: Cardiology, Coronary, STEMI

CLINICAL - SURGICAL

GLIOLAN: A MASTERPIECE IN GLIOBLASTOMA

Alexandra Ionela Strugariu[1], Alexandra Bianca Faraon[1], Iulia Elena Mancas[1], Vadim-Costin Carausu[2], Mădălina - Andreea Florea[1], Ioana Știrban[1]

[1]UMF Gr. T. Popa Iaşi
[2]

Background: Glioblastoma is an aggressive type of cancer that can occur in the brain or spinal cord and it forms from cells called astrocytes that support nerve cells. Glioblastoma can occur at any age but it is more often seen in older adults. It can cause worsening headaches, nausea, vomiting, and seizures. **Objective:** The purpose of this study is to present a case that emphasizes the importance of neurosurgery with Gliolan in treating glioblastoma. **Material and methods:** A 54-years-old male patient, presents himself to our Emergency Hospital accusing pulsating cephalgia. The biochemical analysis does not offer significant particularities, but only a slight increase of hemoglobin and hematocrit. CT scan reveals right temporal intracranial expansive process (ICEP). The patient is admitted to the hospital for other investigations and specialized treatment in the neurosurgical unit. MRI highlights corticalization on the temporal ICEP, with both solid and cystic-necrotic components. He refused any surgery and got medical release. He came back to the ER, complaining again of cephalgia, and we hospitalized him for specialized treatment. The patient is also known for chronic hypertrophic rhinitis, high blood pressure, and chronic serous otitis media. **Results:** Preoperative psychological examination revealed physical and psychical asthenia, emotional instability, irritability, depression, and natural anxiousness. Surgery encompassed the use of UV Filter for Gliolan the total ablation of the macroscopic tumor formation was performed. The extemporaneous anatomopathological examination revealed glioblastoma. Postoperative psychological examination now suggests normal cognitive functions, without any significant clinical symptoms. A favorable evolution was noted, the patient being now cooperative and with bilateral mobility of 5/5 on MRC scale. **Conclusions:** Considering that the diagnosed GB patient presents with only cephalgia, a special mention is due for the role of Gliolan in the significantly improving treatment of glioblastoma.

Keywords: Gliolan, Glioblastoma, ICEP, Cephalgia

DELIVERY IN BREECH PRESENTATION IN 1995 VS 2015: EXPERIENCE OF MURES COUNTY HOSPITAL OBSTETRICS AND GYNECOLOGY DEPARTMENT

Sonia Teodora Luca[1], Mátyás Már[1], Zalán Horvát[1]

[1]UMFST Tîrgu Mureş

Background: Breech presentation is defined as a fetus in a longitudinal lie with the buttocks or legs adjacent to the cervix and is associated with increased maternal-infant morbidity and mortality. **Objective:** The aim of the current study was to analyze and compare the management, the perinatal outcome of breech presentation in 1995 versus 2015 and investigate the clinical evolution of the mothers and of the newborns. **Material and methods:** A retrospective study was conducted in Mures County Obstetrics & Gynecology Clinic comprising of 36 cases of breech presentation delivered after 32 weeks of gestation from 2015 and 34 cases from 1995. We analyzed the management of birth, the postpartum evolution, neonatal mortality and morbidities, one and five minute APGAR score, blood test results. **Results:** In 2015, 36 cases were selected, Caesarean section was done in 28 women and vaginal breech delivery was conducted in 8 women. Out of 36 breech, 8 were frank breech and 28 were complete breech. Vaginal breech deliveries were common in frank breech and caesarean section was common in complete breech. 17 primiparous and 11 multiparous women delivered by caesarean section. The average APGAR score at one minute was 8.5 Comparative, in 1995, 34 cases were found, vaginal breech delivery was conducted in 27 women, Caesarean section was done in 7 cases. 15 were frank breech, 19 were complete breech. Vaginal breech deliveries were common in both frank and complete breech. 17 primiparous and 10 multiparous women delivered vaginally. The average APGAR score at one minute was 7.9 **Conclusions:** In 2015, compared to 1995, primiparous women were more likely to deliver by caesarean section. Thus, the women with frank breech were more likely to deliver vaginally same as in 1995. A significant difference is also in the APGAR score, it was higher in 2015, with a lower rate of morbidities among babies.

Keywords: breech, vaginal delivery, caesarean section

„PANDEMIC CONSERVATIVE TREATMENT" IN AN EXTENSIVE POSTTRAUMATIC SKIN NECROSIS OF THE INNER PART OF THE RIGHT LEG AND ANKLE

Anca Cighir[1], Adrian Boțan[2], Adrian Botan[3]

[1]Emergency Clinical County Hospital of Targu Mures
[2]Clinical County Hospital of Targu Mures
[3]Another University

Background: Posttraumatic eschars affect the skin and the subcutaneous tissues, usually sparing the underlying fascia. They usually appear due to the direct mechanic energetic impact of the skin on a hard surface for a prolonged period of time or a combination of the friction between the superficial tissues and a hard surface. **Objective:** The objective of our paper is to present the treatment options that are available during the pandemic. **Material and methods:** This paper presents the case of a 59 years old woman who was ran over by a bus, the back wheel of the car dragging her and going over the internal side of her right ankle. After a short while, the right foot and calf started swelling, the internal perimaleolar skin became erythematous and later black, shiny and papery. The formed eschar was extremely adherent. She presented to the Plastic Surgery Department but she refused surgical removal choosing instead a long term conservative treatment (daily alternative argentic sulfadiazine, PVP iodine and nitrocellulose and polyurethane foam dressings). The alternative dressings resulted in the delimitation and detachment of the eschar. Soon after, the emergency state was announced and the patient had to go home and treat her own wounds using nitrocellulose dressings and daily baths with warm water and soap. When the outpatient departments opened, she came back to our department to continue her treatment. **Results:** The evolution was very long (about 2-3 months). The granular wound had a favorable evolution and shrank progressively. For this patient, the home treatment was a better option as she lived in a suburban countryside and she could continue her daily activities and remain socially integrated. **Conclusions:** The case presented is representative for this period which affected the entire population, when the medical assistance had to be restrained due to the multilateral impact of the pandemic.

Keywords: conservative treatment, posttraumatic lesion, alternative dressings, eschar

EVOLUTION AND COMPLICATIONS FOR WOMEN WITH CERVICAL INSUFFICIENCY

Oana-Maria Manea[1], Francisc Rozsnyai[1]

[1]UMFST Tîrgu Mureş

Background: Cervical insufficiency is the inability of the uterine cervix to maintain the gestation, appearing usually in the second trimester. Often, cervical shortening followed by painless dilatation leads to prolapse of the fetal membranes and an increased risk of pre-term labor. **Objective:** This presentation illustrates the importance of cervical incompetence, describing the symptoms, antecedents and outcomes in a sample of women diagnosed with this condition. Despite being present in only 1% of the obstetric population, without proper diagnosis and treatment it determines recurrent pregnancy losses. **Material and methods:** We conducted a retrospective study using 50 medical records from pregnant patients with cervical incompetence hospitalized in the County Clinical Hospital Tg. Mures between January 2018 and December 2020. We included all women who underwent prophylactic or emergency cerclage. We look at descriptive statistics and test for significant associations. **Results:** Results show that all women presented lower abdominal pain, 13 (26%) had amniotic fluid leakage and 11 (22%) had minimum vaginal blood discharge. Local examination revealed that 16 (32%) patients had a short cervix. 28 (56%) women had a cervical dilation of 4 cm and 34 (68%) had prolapsed fetal membranes. 25 (50%) patients had prophylactic cerclage and the other half emergency cerclage. Out of 50 pregnancies, 5 (10%) ended with abortion. We found a significant association between the risk of pre-term labor /abortion and recurrent pregnancy losses in the past ($p<0.05$) and between the presence of prolapsed fetal membranes and a therapeutic course including the emergency rescue cerclage ($p<0.05$). **Conclusions:** In cervical incompetence, cerclage cannot fully garuantee the normal evolution of gestation, and yet without this management, pregnant women face a high risk of abortion or pre-term labor. Most patients in our sample had a good evolution of the pregnancy and a good health state of the newborn.

Keywords: Cervical insufficiency, Pregnancy, Cerclage

SARS-COV-2 INFECTION CHARACTERISTICS DURING PRE- AND POSTPARTUM PERIODS

Mátyás Már[1], Teodora Onciu, Lorand Szabo, Sonia Teodora Luca[1], Claudiu Mărginean[1]

[1]UMFST Tîrgu Mureş

Background: SARS-COV-2 pandemic has a huge impact on health care systems all over the world by affecting all age groups and populations. Pregnant women may be at higher risk being infected and developing complicated clinical forms due to the maternal physiologic, metabolic and immune function changes during pregnancy. **Objective:** The aim of the study was to analyze the clinical evolution of pregnant women infected by SARS-COV-2 after childbirth and investigate metabolic and immune functions by laboratory findings. **Material and methods:** We conducted a retrospective review of medical records of 25 pregnant and RT-PCR tested covid positive women who gave birth at Mures County Obstetrics & Gynecology Clinic since the global pandemic started. We analyzed the postpartum evolution of initial symptoms, pacient transfers to intensive therapy units and their CT scan images. We also evaluated metabolic and immunological markers from blood and urine samples during pre- and postpartum periods. **Results:** From the total of 25 patients 48% had typical respiratory symptoms like dry cough, dyspnea, odynophagia, 12% had fever, 52% of the patients were asymptomatic. 76% of the total births were realised by cesarian sections. 24% of the patients were diagnosed with bilateral interstitial pneumonia , 8% of the total patients progressed to severe or critical forms that needed mechanical ventilation. The laboratory findings showed that all syptomatic patients have increased inflamatory markers, hypercoagulability state and elevated liver enzimes. **Conclusions:** During the third trimester and postpartum, SARS-COV-2 infection can raise the metabolic disfunctions and hypercoagulability state. Pregnant women are more susceptible to respiratory patogens and pneumonia, furthermore childbirth can aggravate the initial symptoms. In conclusion, careful monitorization especially of the laboratory parameters can be crucial for early diagnosis , correct treatment and adverse reactions prevention.

Keywords: SARS-COV-2, pregnancy, laboratory characteristics, clinical evolution

MORBIDITY AND MORTALITY RATES IN PATIENTS UNDERGOING UPPER AND LOWER LIMB SURGICAL EMBOLECTOMY

Ágnes Czimbalmos[1], Balázs Nyárádi, Melinda-Maria Csorvasi, Edit Dósa[2], Ákos Bérczi[2]

[1]UMFST Tîrgu Mureş

[2]Semmelweis University

Background: Acute limb ischemia can be caused by thromboembolism, a disease with high morbidity and mortality. In Hungary, emboli are most commonly treated surgically. **Objective:** The aim of our investigation (in the absence of literature data based on large-scale, single-center studies) was to determine the clinical outcome of surgical embolectomies. **Material and methods:** Our retrospective study included 373 patients (223 women; mean age: 70.9±14.7 years) who underwent upper or lower limb surgical embolectomy (2005-2019) at a vascular surgery center. Anamnestic data, thromboembolic risk factors, preoperative imaging with ultrasound and digital subtraction angiography, as well as amputation and mortality rates were analyzed. **Results:** 39.1% of patients had a history of atrial fibrillation. At the time of the embolic event, 73 patients (19.6%) were on anticoagulant therapy. Less than 24 hours elapsed between the onset of symptoms and embolectomy in 236 cases (63.3%), 1-7 days in 81 cases (21.7%), and more than 1 week in 56 cases (15%). 36.5% of the emboli were localized to the upper limb and 64.5% to the lower limb. Embolism involving more than one vessel in the upper limb was observed in 73 patients (19.6%) and in the lower limb in 153 patients (41%). Reocclusion occurred in nine patients (2.4%; upper limb, N=7; lower limb, N=2). Minor amputation was performed in two patients (0.5%), while major amputation was carried out in 35 cases (9.4%). The 30-day mortality rate was 5.1%. The amputation rate was significantly worse ($P<0.001$) in patients with more than 24 hours between symptom onset and embolectomy compared with those who underwent surgery within 24 hours. No correlation was noted between the number of affected vascular segments and amputation and mortality rates ($P=0.381$ and $P=0.098$, respectively). **Conclusions:** The time between the onset of symptoms and embolectomy is a critical factor in embolization.

Keywords: embolectomy, thromboembolism, acute limb ischemia

SURGICAL MANAGEMENT OF PATIENTS WITH THORACIC AND ABDOMINAL PATHOLOGY IN THE CONTEXT OF STATE OF EMERGENCY AND ALERT CAUSED BY SARS-COV-2

Theofana Mihăilă[1], Sergiu-Ștefan Laszlo[1], Calin Dragos Molnar[1], Mihnea Dorin Bloj, Andrada Nechita[1], Marian Botoncea[1], Călin Molnar[1]

[1]UMFST Tîrgu Mureş

Background: The worldwide spread of the novel coronavirus has brought along tremendous changes across all medical specialties and had a substantial socioeconomic impact in most hospitals. **Objective:** Most of the studies that focus on the surgical treatment of patients with thoracoabdominal pathology on the COVID-19 pandemic used epidemiological surveys. There are few reports on the processes that underline the influence on a few diagnoses and treatments. Therefore, in this study, we retrospectively analyzed the clinical data of patients whose surgical management was conducted by the staff of Surgery Clinic No. 1, Emergency County Clinical Hospital of Targu Mures to discover how the ongoing pandemic influenced surgical decision making. **Material and methods:** From 16th March to 31st December 2020, 190 patients needing surgery without delay due to thoracoabdominal emergencies that underwent treatment at the clinic have been included in the study. **Results:** During the study period, there were a total of 190 patients, 48% male and 52% female. A total of 2.1% were infected with the virus and all of them were men. CT Scans were performed on 62.5% of the patients, ultrasounds on 15%, abdominal X-rays on 16.25%, and thoracic X-rays on 37.8%. The following clinical variables were also examined: sex (92 were men and 98 were women), age 60.43±16.06 and complete blood count. The most frequent diagnosis was cholecystitis (15%). In 21.25% of the cases, there was no need for surgery or it was refused and the rest (78.75%) underwent a surgical procedure, exploratory laparotomy being the elected procedure for 48,4% of the remaining cases. Mean hospital stay was 7.37±5.30 days. Mortality was 5.78%, with all of them being male. **Conclusions:** The pandemic has interrupted routine surgical management and treatment. Even though laparoscopy is less invasive, it was considered an aerosol-generating procedure, therefore, since the COVID-19 outbreak began, laparotomy has risen in popularity.

Keywords: COVID-19 MANAGEMENT, LAPAROSCOPY, EMERGENCY SURGERY, PANDEMIC IMPACT

THE IMPACT OF COVID-19 ON EMERGENCY GENERAL SURGERY

Theofana Mihăilă[1], Calin Dragos Molnar[1], Carmen Elena Dulhan[1], Mihnea Dorin Bloj, Ana-Mirela Nițu[1], Marian Botoncea[1], Călin Molnar Molnar[1]

[1]UMFST Tîrgu Mureş

Background: The COVID-19 pandemic has reshaped the healthcare system in a matter of weeks. New hospitals were built all over the world, new departments were founded, new staff was employed whilst training and teaching was has stopped. **Objective:** Our study investigates the impact of the state of alert regarding emergency general surgery practice in Romania focusing on the number of patients, hospitalization duration, the methods of diagnosis, the management pathways, the mean of investigating, and the possible outcomes. **Material and methods:** We collected retrospective data from two cohorts: 104 patients admitted over a period of a month and a half before the COVID-19 outbreak (from 16th March to 30th April 2019) and 31 patients admitted over the same period during the COVID-19 outburst, in 2020. **Results:** During the COVID-19 period, there were an increase in the number of thoracic X-rays (by 97,32%) and ultrasounds (by 42.64%) while the number of abdominal X-rays and CT scans decreased (by 0,69% and 5.05% respectively). Also, there is an increase in laparotomy incidence with 55.45%, a decrease of laparoscopy procedures with 89.18%, and the length of hospitalization has decreased by 17.52%. As we know in the COVID era, there were fewer hospitalized patients (with 69.23%). Regarding the blood tests, we observed that there were performed more frequently for one patient than in the pre-COVID era. **Conclusions:** We recorded a reduction of 2 days in patients' hospitalization stays compared to those in the previous year. Furthermore, the number of hospital admissions lowered. There is also discussion regarding the fact that the patients were cautious about going to hospitals at the time. The COVID-19 pandemic has had a deep and important impact on general surgery. In March 2020 the elective procedures were stopped and the centers' activity was reduced to treating urgent cases only.

Keywords: COVID-19 IMPACT, EMERGENCY MANAGEMENT PATHWAYS, HOSPITALIZATION, CLINICAL

IMAGING

WOAKES' SYNDROME - CASE REPORT

Luciana Lăpușneanu[1], Lucian Lăpușneanu[2]

[1]UMFST Tîrgu Mureş
[2]Another University

Background: Woakes' syndrome is a rare entity, defined as severe recurrent chronic rhinosinusitis with nasal polyps, which has as a consequence the deformation of the nasal pyramid, produced by the continuous pressure and the inflammation maintained by the size of the polyps. **Objective:** We present the case of a 60-year-old patient who addressed the ENT Outpatient Clinic of the Braila County Emergency Hospital for complete bilateral nasal obstruction, nasal pyramid deformity, posterior rhinorrhea, anosmia, closed rhinophony, frontal headache. **Material and methods:** Surgical treatment consisted of endoscopic sinus surgery, performing in a first operative time a bilateral polypectomy with the microdebrider. Intraoperatively, significant changes in the rhinosinusal anatomy were found: complete absence of the middle nasal turbinates and partially of the left lamina papyracea, multiple polypoid degenerations of the nasal septal mucosa. **Results:** The postoperative treatment consisted of nasal saline irrigation and topical intranasal corticosteroid spray. The follow-up performed at 10 days postoperatively revealed rhinosinusal cavities partially lined with crusty secretions, without signs of local recurrence. There was also a narrowing of the nasal pyramid compared to the preoperative aspect.Patient reassessment was indicated at one and three months postoperatively, respectively. **Conclusions:** The etiology of Woakes' syndrome remains uncertain, the disease generally showing a long-term evolution, with difficulty in terms of treatment and control of the disease. The therapeutic attitude remains the medical-surgical one. Endoscopic sinus surgery, followed by topical treatment and, if necessary, even systemic, are required to prevent or reduce relapses. The treatment should be performed in collaboration with the allergist, thus helping to improve the general biological parameters of the body and increase the patient's quality of life.

Keywords: Woakes' syndrome, Functional endoscopic sinus surgery, Nasal polyposis

THE INDICATIONS FOR PERFORMING A CESAREAN SECTION IN WOMEN WITH SCARRED UTERUS

Elena Diana Strătilă[1], Claudiu Mărginean[1]

[1]UMFST Tîrgu Mureş

Background: Nowadays Cesarean Section is seen as an easy intervention with little to no complications and mothers tend to opt for this, even against the doctor's recommendation or without any medical indication. Once undergoing a cesarean section, the probability that the next pregnancy will be finished in the same way is significantly high, making this intervention more common, thus surpassing the World Health Organization's suggestion to keep the C-Section rates around 10-15% of the total birth rate, because there is no study proving that a higher rate can improve health outcomes. **Objective:** The study's target is to analyze the percentage of women which underwent a C-Section as a result of previously giving birth through this method, in order to better understand the implications of performing the intervention in primiparous women. **Material and methods:** For the study, I analyzed the data from the Obstetrics and Gynecology Department in County Hospital of Târgu-Mureș, for a period of three years, from 1st of January 2018 to end of 2020. The criteria for inclusion were that the patient was pregnant and she gave birth through cesarean section. **Results:** Out of 1676 patients included in the study, 542 (32.33%) were diagnosed with scarred uterus and the C-Section was performed. One of them had a partial rupture of the uterus, 15 (2.77%) had the scar after a myomectomy, while 526 (97.05%) of them were after previous C-Section. 76% of them were at their second birth. **Conclusions:** Considering the fact that 76% of the C-Sections were performed for women who had only one previous pregnancy that ended with the intervention, we can conclude that generally lowering the number of C-Sections in primiparous women will also lower the general rate of births through C-Section

Keywords: caesarean section, scarred uterus, obstetrics, indications

MANAGEMENT OF HIGH-OUTPUT POSTOPERATIVE ENTERO-CUTANEOUS FISTULA

Ana-Ștefania Solomon[1], Dora Cordaș[1], Adelina Papancea[1], Bogdan-Mihnea Ciuntu[1]

[1]UMF Gr. T. Popa Iaşi

Background: Fistulas are known complications of surgical interventions on the digestive tract that occur due to altered anatomy, physiological and metabolic imbalances and constant exposure of the suture threads to digestive enzymes. **Objective:** Our goal is to bring forward a case sitting on the border between classical and modern in terms of techniques used for closing an entero-cutaneous fistula arisen in context of a mixed-decompensated liver cirrhosis with toxic etiology, following surgery for a duodenal bleeding ulcer. **Material and methods:** 46-years old patient is transferred to our surgical service with an early external postoperative digestive fistula after undergoing a duodenotomy and haemostasis in situ with "X" suture. Local examination revealed an increased-of-volume abdomen due to ascites fluid, collateral circulation, painless to palpation, with a drain tube placed in the right flank (exposing clear ascites fluid). The previous surgical incision was xifo-supraombilical, 15cm in length, sutured with separate threads, at the lower pole showing large amounts of bilio-digestive, the leaking point being later objectified during endoscopy and radiography by ingestion of methylene blue, respectively radiocontrast agents; further examination uncovered whole-length presence of wound dehiscence. **Results:** We used various techniques in the management of this case, as it follows: an over-the-scope clip combined with compressive dressing, a lactic acid instillation system with continuous aspiration, Monica Roșca meshing and, ultimately, negative pressure wound therapy with local antibiotic instillation for closing the abdominal wall, the patient at long last being discharged after four weeks of hospitalization in our clinic. **Conclusions:** Management of external digestive fistulas is a complex, challenging and multidisciplinary process where the conservative treatment is paramount, this mainly consisting of ways to correct metabolic and nutritional deficits and to control infections, surgery only being required in presence of adverse factors.

Keywords: entero-cutaneous fistula, negative pressure wound therapy, liver cirrhosis

EVALUATING THE QUALITY OF LIFE IN PATIENTS WITH TOTAL LARYNGECTOMY

Andrada Nechita[1], Cristian Neagos, Theofana Mihăilă[1], Ana-Mirela Nițu[1], Adriana Neagoș[1]

[1]UMFST Tîrgu Mureş

Background: Interpersonal communication is an important element of social life. The total laryngectomy has an important psycho-somatic and social effect over the patients, the most important being the loss of the speech capacity. Phonatory rehabilitation after total laryngectomy may be obtained through several methods, such as esophageal voice (speech), the laryngophone or the phonatory prosthesis. **Objective:** The aim of this paper is to evaluate the quality of life of the patients after a total laryngectomy, a very important issue after a radical surgical intervention. **Material and methods:** Our study is a retrospective, non-randomized and transversal study in which we analyzed the data of the patients who suffered a total laryngectomy in the Otolaryngology Department from our clinic in Targu Mures, Romania, between 2015 and 2018. In this study, the main variables were: age, gender, histopathological grading, post surgical oncology treatments and the quality of life. In order to evaluate the quality of life we applied the EORTC-QLQ C30 questionnaire and the H&N35 questionnaire - European Organization for Research and Treatment of Cancer Quality of life Questionnaires. These questionnaires are made of 65 items which evaluate the global quality of life, the psychic and somatic functionality and the symptomatology of the subjects. The subjects were divided in several groups according to their level of phonatory rehabilitation. **Results:** The results obtained were statistically analyzed. The scores resulted from the statistical analysis showed a significant difference between the three groups. The highest level of the quality of life was observed in the patients with phonatory prosthesis. **Conclusions:** Phonatory rehabilitation after total laryngectomy may be obtained through several methods, such as esophageal voice (speech), the laryngophone or the phonatory prosthesis. The quality of life after a radical surgical intervention is a very important issue in a patient's life.

Keywords: laryngectomy, quality of life, speech, oncology

GRADING OF CAROTID ARTERY STENOSIS AND IDENTIFYING SUBSECQUENT POST ENDARTERECTOMY STROKE WITH RECENT BIOMARKERS: NEUTROPHIL/LYMPHOCYTE RATIO, PLATELET/LYMPHOCYTE RATIO AND CLAMPING TIME

Mihai Șoimu[1], Andra Fusaru, Cătălin Andrei Zăgan[1], Adrian Mureșan[1], Cătălin Coșarcă[1]

[1]UMFST Tîrgu Mureş

Background: Carotid stenosis is defined as an atherosclerotic luminal narrowing, which is prone to ischemic stroke. High morbidity and mortality rates are the clinical expression of a severe stroke prognosis. **Objective:** In this study we aimed to investigate whether the biomarkers PLR(platelet/ lymphocyte ratio) and NLR(neutrophil/ lymphocyte ratio) could predict the grade of carotid stenosis. Furthermore, we examined the correlation between these ratios and carotid clamping time in order to determine the incidence of postoperative stroke. **Material and methods:** A total of 109 patients(68 males, 41 females, mean age 67.70 ±9.499, range 36-89) underwent a Doppler ultrasonography which leads to the diagnosis of carotid stenosis. According to the NASCET(North American Symptomatic Carotid Endarterectomy Trial) classification, the patients were divided into 4 groups: Group 1(<50%), Group2(50-69%), Group 3(70-89%), Group 4(90-99%) and their treatment consisted of carotid endarterectomy. **Results:** Higher levels of PLR, NLR and clamping time were found in patients with severe stenosis(p=<0.0001, p=0.0078, p=<0.0001), yet the lymphocytes reached a peak value in patients with mild stenosis(p=0.0009). Multivariate analysis showed a strong correlation between neutrophil/ lymphocyte ratio and postoperative stroke, confirmed by (OR=2.00, 95% CI - 1.096 to 3.998, p=0.0252) and the threshold of NLR of 3.7217, with a sensitivity of 80% and a specificity of 84%(AUC=0.8788, 95%CI=0.7909 - 0.9668, p=0.0043). Consequent to our examinations, clamping time could be an independent factor for post endarterectomy stroke, hypothesis asserted by(OR=1.196 , 95%CI=1.021 to 1.448, p=0.0375) and a threshold of 28 minutes, with a sensitivity of 60% and specificity of 78%(AUC=0.7615, 95%CI=0.7615, p=0.0489). **Conclusions:** Based on our results, PLR and NLR were proven to be economic and facile methods of evaluating severe carotid stenosis, whereas the clamping time and NLR foresee the post endarterectomy stroke.

Keywords: carotid stenosis, platelet/ lymphocyte ratio, neutrophil/ lymphocyte ratio, post endarterectomy stroke

SIGNIFICANCE OF CELLULAR ATYPIA IN OVARIAN ENDOMETRIOSIS

Theodor - Șerban Barna[1], Lucian Pușcașiu[1]

[1]UMFST Tîrgu Mureş

Background: Endometriosis is defined as the presence of endometrial-type mucosa outside the uterine cavity. The presence of atypia is thought to be a preneoplastic lesion. Architectural atypical endometriosis (hyperplasia) resembles the endometrial simple/complex hyperplasia, with or without atypia. Clement et al. revealed in their study that the architectural type of atypia is rarer than the cytologic atypia present in endometriomas. **Objective:** The aim of the present work is to establish the prevalence and significance of ovarian endometriosis with atypia, represented by the cytological atypia and architectural atypia. **Material and methods:** Retrospective histopathological assessment of 259 patients aged between 19-51 years old who were surgically treated for ovarian endometrioma at Tirgu-Mures Emergency County Hospital, Obstetric Gynecology Clinic between January 2014 - December 2018. **Results:** Out of 259 endometrioma cases, 107 presented right localization, 101 left and 51 patients had bilateral impairment. Out of total, 51 cases presented atypia, 20 on the right, 24 on the left, and 7 bilateral endometrioma with cellular atypia therefore the presence of a higher susceptibility on the left side was noted. 39 patients (15,1%) presented recurrence. Those patients show a direct relation of proportionality with increased occurrence of endometriotic cyst. Patients with recurrence under the age of 40 have statistically more atypia. Out of our 5 cases that presented relapse, 3 had bilateral localization and 3 had cysts larger than 5cm. **Conclusions:** The risk factors for the increase of recurrences include young age (under 40), surgical history for the bilateral endometriosis localization, the stage of the disease at the moment of initial intervention, medical treatment after surgery. The architectural type of atypia is rarer than the cytologic atypia present in the endometriomas, fact shown in our study. The presence of endometrioma was not statistically significant correlated to left or right-sided localization. Endometrioma larger than 7cm represents a risk for recurrence and atypia development.

Keywords: Ovarian endometriosis, cellular atypia, reccurance, endometriotic cyst

THE MANAGEMENT OF INFRARENAL AORTIC ANEURYSMS

Andreea-Adelina Dinu[1], Cosmin-Valentin Dragomir[1], Teodora-Lucia Moldovan[1], Vasile Adrian Muresan[1], Mircea-Catalin Cosarca[1]

[1]UMFST Tîrgu Mureş

Background: Aneurysms are asymptomatic until rupture in most patients and are usually diagnosed incidentally during extensive clinical examination or exceptionally after complications like distal embolization and, more rarely, acute thrombosis **Objective:** The AAA rupture is a catastrophic event, therefore, by establishing the rate of complications and death, as long as the amount of resources spent on this patients in comparison to those with non-ruptured AAA, we highlight the importance of screening programs among the population, in order to prevent acute, deadly events. **Material and methods:** This was a retrospective study including patients admitted to the Vascular Surgery Department of the Emergency County Hospital of Tîrgu Mureş, who had undergone surgical treatment for abdominal aortic aneurysm.The first group consisted of 16 patients with ruptured AAA and the second one of 22 patients with non-ruptured aneurysm. Medical records and laboratory findings throughout the admission period were collected, together with basic anthropometric features, previous medical history, postoperative course and the outcome of AAA repair **Results:** Mean aneurysm diameter was significantly higher in patients in the first group (8,13 cm) in contrast to those treated due to elective surgery (6,22), with a p-value of 0,009. The difference between the two groups regarding the aneurysmal thrombosis was not statistically significant. **Conclusions:** Incidental AAAs are very common and unfortunately they are very hard to be diagnosed before rupture. Our informations suggested that improved monitoring of incidental AAAs was highly associated with elective AAA repair. Analyses made on people data are required to determine the effect that monitoring has on incidental AAA rupture and patient mortality.

Keywords: aortic, abdominal, aneurysm, rupture

COMPLICATIONS OF ENDOVASCULAR COILING VERSUS SURGICAL CLIPPING IN THE TREATMENT OF RUPTURED BRAIN ANEURYSMS

Timea Stefania Szekely Nagy[1], Rusu Roberto George[1], Nicolae Dorin Gherasim[1]

[1]UMFST Tîrgu Mureş

Background: Non traumatic subarachnoid hemorrhage is most commonly caused by a ruptured brain aneurysm. Clinical features are devastating after onset. Proper treatment decision can be life saving. **Objective:** The aim of this retrospective study was to analyze differences in postoperative complications between the two treatments: endovascular coiling and surgical clipping in our institution, over a 4 years period. **Material and methods:** We included 142 patients with ruptured intracranial aneurysms of internal carotid artery and branches, who underwent endovascular coiling (56 patients) and neurosurgical clipping (86 patients) from 1 January 2017 to 31 December 2020 in the Neurosurgery Clinic, of Targu Mures Emergency County Hospital. Cinical assessments, brain computed tomography and angiography were performed on the members of the groups. Clinical data was collected based on the observation sheets and database registries. For statistical analysis we used GraphPad Prism 9 , Fisher's exact test, Chi-square and Chi-Square with Yates correction, considering $p<0,05$ as statistically significant. **Results:** Compared, the two groups (endovascular vs surgically treated) showed no statistically significant difference regarding the incidence of total complications (p=0,54 , OR=0,81 95% CI 0,40-1,62): vasospasm (p=0,34; OR=0,71 95% CI 0,36-1,41), hydrocephalus (p=0,079; OR=2,75 95% CI 0,96-7,08), rebleeding (p=>0,99; OR=1,02 95% CI 0,17-5,15), hypertensive crisis (p=>0,99;OR=0,75 95% CI 0,14-3,35), bronchopneumonia (p=0,21; OR=2,31 95% CI 0,74-6,79), MRSA (p=0,56; OR=3,14 95% CI 0,35-46,08). **Conclusions:** The most relevant findings were that vasospasm, hydrocephalus and rebleeding are the most common postprocedural complications, without significant differences between the two treatment procedures.

Keywords: brain aneurysms, endovascular coiling, neurosurgical clipping

ABDOMINAL TRAUMA BEFORE THE SARS-COV-2 PANDEMIC AND DURING THE SARS-COV-2 PANDEMIC

Ana Trif[1], Tatiana Trif[1], Avram Trif, Mihaela Alexandra Vasiu, Luiza Maria Giurgiu, Calin Molnar[1], Mircea Gherghinescu[1]
[1]UMFST Tîrgu Mureş

Background: Abdominal trauma should not be neglected, due to the numerous complications, prolonged treatment and high mortality. **Objective:** The aim of this study is to identify if the number of cases in patients with abdominal trauma has changed between 2019 and 2020 for those who were admitted in the First Clinic, Emergency County Clinical Hospital of Tirgu-Mures. **Material and methods:** For the patients who underwent a surgery between 2019 and 2020 in the First Clinic, Emergency County Clinical Hospital of Tirgu-Mures we analysed: the gender, the mechanism in which the trauma occurred, the most frequent injury, surgery, the hospitalization period and the Intensive Care Unit transfer. **Results:** In 2019 for the patients submitted to the surgery department we discovered that 44.44% were involved in road accidents, the most frequent surgery was exploratory laparotomy 61.11%, the most common diagnosis was hemoperitoneum 38.88% and 16.66% were transferred to the Intensive Care Unit. The postoperative mortality was 11.11%. In 2020 a number of 17 patients were hospitalized in the surgery department with abdominal trauma, 70.58% were men 58.82% of injuries occurred due to road accidents, the most common operation was exploratory laparotomy 35.29% and the most frequent diagnosis was hemoperitoneum 52.94%. Other comorbidities found were 23.52% anemia (Hb<11 g/dL), 52.94% liver injury (GOT>34 mg/dL, GPT>55 mg/dL). The postoperative mortality was 5.88% and 23.52% of patients were transferred to the Intensive Care Unit. **Conclusions:** The number of patients who were submitted in 2020 during the SARS-CoV-2 pandemic with abdominal trauma decreased by 5.55% compared to the patients from the previous year.

Keywords: abdominal, trauma, pandemic, laparotomy

THORACIC TRAUMA BEFORE THE SARS-COV-2 PANDEMIC AND DURING THE SARS-COV-2 PANDEMIC

Tatiana Trif[1], Ana Trif[1], Avram Trif, Cezara-Ilinca Stanciu[1], Luiza Maria Giurgiu, Calin Molnar[1], Mircea Gherghinescu[1]
[1]UMFST Tîrgu Mureş

Background: Chest injuries are a life-threatening condition that require multiple anatomical regions to be assessed simultaneously. **Objective:** The purpose of this paper is to identify if the number of patients with thoracic trauma has changed between 2019 and 2020 for those who where hospitalized in the First Clinic, Emergency County Clinical Hospital of Tirgu-Mures. **Material and methods:** From 2019 up to 2020 the patients who underwent a surgery in the First Clinic, Emergency County Clinical Hospital of Tirgu-Mures we recorded: the gender, the trauma mechanism, the most frequent injury, surgery, the hospitalization period and the Intensive Care Unit transfer. **Results:** In 2019 we discovered that 30.30% were involved in trauma caused by falling from under 2 meters height, as for the cure beside the conservative treatment, the most frequent surgery was thoracostomy 19.69%, the most common diagnosis was 4 or more ribs fractures 45.45%, 12.12% were transferred to the Intensive Care Unit and the postoperative mortality was 4.54%. In 2020 a number of 41 patients were hospitalized in the surgery department with thoracic trauma, 26.82% were women 29.26% of injuries occurred due to falling from under 2 meters height, the most common operation was thoracostomy 12.19% and the most frequent diagnosis was 4 or more ribs fractures 46.34%. Other comorbidities found were 4,87% flail chest, 19.51% hemothorax, 7.31% pneumothorax and hypoxemia which required 19.51% of patients to use face masks with oxygen. The postoperative mortality was 12.19% and 17.07% of patients were transferred to the Intensive Care Unit. **Conclusions:** The number of patients who were submitted in 2020 during the SARS-CoV-2 pandemic with thoracic trauma decreased by 37.87% compared to the previous year.

Keywords: thoracic, trauma, pandemic, thoracostomy

OBESITY RELATED GALLBLADDER DISEASE- A RETROSPECTIVE STUDY PERFORMED IN THE SURGERY DEPARTMENT OF MUREȘ CLINICAL COUNTY HOSPITAL

Sabina Emanuela Oltean[1], Sorin Sorlea[1], Ioan Flavius Mocian[1]

[1]UMFST Tîrgu Mureş

Background: Obesity represents an important risk factor for the development of biliary disease. Cholesterol hypersecretion in the gallbladder may cause gallstone disease and consecutively cholecystitis; cholesterolosis. **Objective:** The aim of the present study was to analyze the histopathological findings of gallbladder specimens in patients with obesity and to compare the outcomes with a non-obese control group. **Material and methods:** A consecutive group of obese patients (n=301) who had undergone cholecystectomy and a second consecutive control group of non-obese patients (n=528) who had also undergone cholecystectomy between January 2017 and December 2020, in Surgery Department of Mureș Clinical County Hospital, were compared. Gallbladder histopathological findings were defined as: acute cholecystitis, chronic cholecystitis, and chronic cholecystitis with cholesterolosis. **Results:** Mean age of obese patients and control group was 55.7 ± 14.5 and 55.2 ± 15.6 years respectively, and mean BMI was 34.2 ± 3.7 and 25.6 ± 2.6 kg/m^2 respectively, p<0.0001. In the obese group and control group female gender was 74.7% and 71.1% respectively. There was no difference between obese patients and control group regarding acute cholecystitis (17.2% vs 21.4%, p=0.174) and chronic cholecystitis (62.1% vs 64.2%, p=0.549). Although, a slightly higher incidence of chronic cholecystitis with cholesterolosis was observed in obese patients compared with control group (20.6% vs 14.3%, p=0.025). **Conclusions:** Obese patients have an increased risk to develop cholecystitis with cholesterolosis compared with non-obese patients.

Keywords: obesity, gallbladder, cholecystitis, cholesterolosis

PNEUMOSINUS DILATANS, A COMPLEX INTERDISCIPLINARY PATHOLOGY

Cristian-Norbert Ionescu[1], Boglárka Varga, Gheorghe Mühlfay[1]

[1]UMFST Tîrgu Mureş

Background: Pneumosinus Dilatans (PD) is a pathology of the paranasal sinuses described more than 100 years ago, yet still lies with an uncertain etiology. Despite the fact that it is considered to be a rare entity, 145 cases reported since 1898, the numbers grew significantly with the advances in the field of Imagistics. **Objective:** The aim of this article is to contribute to the literature for a more clear and quicker diagnosis and understanding of this pathology. **Material and methods:** we reviewed 35 cases of patients diagnosed with PD, who were admitted to the Otorhinolaryngology Clinic of Târgu-Mureș between 2013 and the august of 2020. For the descriptive statistics Microsoft Excel was used. **Results:** From a total of 35 patients (22 male) with a mean age of 37.14, 14 had significant ENT morbidities treated in the past (nasal septum deviation, PD, chronic sinusitis and other). The most frequent symptoms were headache (97.14%), nasal obstruction (74.29%), pain of the sinus points (48.86%), with an average duration of 27 months. Beside the ENT aspects, a significant number of comorbidities from other fields such as Ophthalmology, OMS, Neurology, Neurosurgery, Psychiatry, Pediatrics were present. The sphenoidal (15), and fronto-sphenoidal (12) localizations were most commonly involved, with two (20) and four or more (10) pathological sinuses, with an average hospital admission time of 8 days. **Conclusions:** Although it is considered a chronic disease, in many cases spontaneous exacerbation may occur leading to life threatening emergencies. In the view of the increasing number of cases in the last decades, the importance of an interdisciplinary attitude is crucial in order to review and renew the protocols for a faster diagnosis and better treatment of PD. Patients with similar symptoms and duration, should be considered not only for CT scan but also MRI and ENT evaluation sooner.

Keywords: pneumosinus dilatans, interdisciplinary, diagnosis, management

MANAGEMENT OF INTRAABDOMINAL TESTIS IN THE PEDIATRIC POPULATION

Mira Sandersfeld[1], Antonia Blau[1], Michela Parente[1], Derzsi Zoltan[1], Horea Gozar Gheorghe[1]

[1]UMFST Tîrgu Mureş

Background: The etiology of abdominal undescended testis is believed to lie in genetic, anatomical and hormonal factors. Due to the increased risk of infertility, torsion and testicular cancer, as well as cosmetic concerns, it is required to find a treatment for all of these patients. According to multiple studies performed, it is shown, that surgery is the first-line treatment modality recommended in undescended testis and that it should be performed by pediatric surgeons and urologists at a patients age of 6-12-24 months. **Objective:** The focal point of this presentation is to underline the best surgical technique used with the least intra- and postsurgical problems in order to correct intraabdominal testis and descend them to their physiological location in the scrotum. **Material and methods:** In this retrospective study we are looking at the surgically treated intraabdominal testis, that have been handled at the Pediatric Surgery Department from the Emergency County Hospital of Târgu Mureș in a period of 8 years, combined with a number of studies made regarding the surgical management of this type of cryptorchidism. **Results:** The surgical techniques used for the correction of high-level intra-abdominal testis have a pretty good outcome. In terms of the highest success rate and lowest atrophy rate, 2-stage laparoscopic Fowler-Steven orchiopexy is the first choice for treating high intra-abdominal cryptorchidism. Here we can find an overall success rate of 87% with an atrophy amount of around 20%. **Conclusions:** Surgical management of intraabdominal testis is a complex treatment with a usually favourable outcome considering the high success rates in surgically treated patients. Anyhow, complications such as necrosis are still possible to occur and should not be underestimated during the postsurgical follow-up.

Keywords: Intra-abdominal testis, Fowler-Stephens orchiopexy, cryptorchidism, testicular atrophy

RIGHT OCCULT CALCANEOPLANTAR MALIGNANT MELANOMA – RADICAL EXCISION AND CLOSURE BY LOCAL FLAP

Adrian Boțan[1], Matei Botan, Anca Cighir[2], Adrian Botan[3]

[1]Clinical County Hospital of Targu Mures

[2]Emergency Clinical County Hospital of Targu Mures

[3]Another University

Background: Malignant melanomas are among the most aggressive tumors, with uncertain evolution and variable reaction to immunological treatment. The initial therapy is always surgical followed or not by regional lymphadenectomy. **Objective:** The objective of the paper is to present the treatment options for a calcaneoplantar malignant melanoma. **Material and methods:** This paper presents the case of a 32 years old patient who accidentally discovered (due to an irritating itch of the right sole and heel) a tumor-like structure. The patient was dermatoscopically investigated in a few different hospitals and they all confirmed the presence of a malignant melanoma. He then came to the Plastic Surgery Department where the tumoral lesion was removed under local anesthesia. The postexcissional defect was then covered by a fasciocutaneous flap (based on perforator vessels and with V-Y advancement). Macroscopically, the structure perfectly fit the ABCD criteria of the malignant melanoma. The postoperative evolution was really good, the flap was warm, normally colored and without signs of vascular suffering. **Results:** The excised histopathological sample was examined confirming the diagnosis (MELTUMP). All the examined sections indicated a tumoral proliferation with the aspect of intradermic melanocytic nevus with the exception of one margin of the nevic proliferation where the cells had a different aspect. Atypical mitoses were also noted. None of the other investigations indicated the presence of a malignant melanoma. Finally, the diagnosis was infirmed, therefore regional lymphadenectomy and any kind of immunologic treatment was not indicated. **Conclusions:** The patient is oncologically supervised even today at his local oncology department, but no sings of local or systemic evolution of the lesion were found. Even so, we consider the large excision of the tumoral structure and the decision of using a flap to cover the postexcisional defect were a saving solution for a border lesion which could have evolved towards a malignant tumor.

Keywords: malignant melanoma, fasciocutaneous flap, MELTUMP

NUTRITION AND DIETETICS

NUTRITIONAL STATUS AND ITS EFFECT ON ACUTE ABDOMEN PATIENTS DURING THE COVID PANDEMIC

Ionela Călini[1], Adriana Pană[1], Calin Dragos Molnar[1], Cosma Catalin[1], Molnar Calin[1]

[1]UMFST Tîrgu Mureş

Background: The presence of malnutrition and obesity in a surgical patient has a direct influence on the overall outcome. The prevalence of poor nutritional status in patients undergoing emergency surgery has increased, especially during the current COVID-19 pandemic. **Objective:** Our study aimed to assess the nutritional status and outcomes of the patients diagnosed with acute abdomen during the COVID-19 pandemic. **Material and methods:** We conducted a retrospective study in which we included all the patients with acute abdomen enrolled and operated in the First Surgical Clinic in Tîrgu-Mureș Emergency County Hospital between February 2020 and October 2021 during the national state of emergency. **Results:** We recorded a total number of 210 patients over the nine months. The average age of the patients was 68 years. We observed a male predominance of 65% with 35% female patients. The main diagnosis for patients with acute abdomen was general peritonitis with the most encountered in acute appendicitis cases. The overall mortality rate was 18%. Malnutrition was present in 35 cases with a 7% mortality and obesity (BMI >30) was present in 60 cases with a 7% mortality rate. Mean hospital stay was higher for patients with pathological nutritional status - 6 days overall. The clinical outcome was poor especially in the malnourished patients compared to those with a good nutritional status. Postoperative wound infection was recorded mainly in patients with obesity. **Conclusions:** Poor nutritional status in patients undergoing emergency surgery during the COVID pandemic increased the rate of morbidity and mortality with increased postoperative complications. Nutritional status assessment in the preoperative and postoperative time is vital to ensure a good outcome for the patients.

Keywords: nutritional status, obesity, acute abdomen, covid pandemic

---

THE IMPACT OF THE COVID-19 PANDEMIC ON EATING BEHAVIOR AND BODY MASS INDEX IN ILFOV COUNTY WOMEN

Adriana Pană[1], Ionela Călini[1], Ana Francesca Pană, Maria Dorina Pașca[1]

[1]UMFST Tîrgu Mureş

Background: The COVID-19 pandemic brought with it major changes that have left their mark on all levels, both socially and individually, mentally and physically, reflected on lifestyle. **Objective:** The aim of our study was to evaluate the changes occurred on eating behavior and body mass index in women, caused by the COVID-19 pandemic. **Material and methods:** We conducted an observational study in 2021, between March the 1st and April the 7th, based on structured questionnaire that included 24 questions analyzing multiple aspects of the life quality of 143 women from Ilfov County, over the age of 18, reflected in eating behavior and body mass index, in the context of quarantine, social isolation and teleworking imposed by the pandemic period. The questionnaire was distributed on various online platforms. **Results:** Weight gain was observed in 91.27% of the women; body mass index values were higher in 86.27% of respondents; 6.91% of subjects decided to start smoking; a significant decrease in physical activity has been reported in 74.31% of respondents; the population group aged 19-25 years resulted in having a higher adherence to fast food diet when compared to the elderly population, 85.12%, respectively 11.84%. 61.35% of respondents opened three times more often the fridge. **Conclusions:** In this study, we provided data on the major impact caused by the COVID-19 pandemic on eating behavior and body mass index in women. However, as the COVID-19 pandemic is ongoing, our data need to be confirmed and investigated in further extensive population studies.

Keywords: nutrition, eating behavior, women, COVID-19 pandemic

ASSESSMENT OF NUTRITIONAL STATUS IN A GROUP OF HOSPITALISED CHILDREN WHO WERE BORN TO TEENAGERS

Adriana Pană[1], Ionela Călini[1], Ana Francesca Pană, Ana Maria Pitea[1], Vladimir Constantin Bacârea[1]

[1]UMFST Tîrgu Mureş

Background: According to literature data, pregnancy in adolescence and child malnutrition are common challenges in low- and middle- income countries, and are associated with many complications and comorbidities for both mothers and children. Romania occupies the first place among European countries with the most adolescent mothers and the highest infant mortality rates in Europe. **Objective:** The purpose of this study was to evaluate the nutritional status of children born to teenage mothers. **Material and methods:** We performed a retrospective study on 60 children, from 1 day old to 5 years old, hospitalized in the Pediatric Department of County Emergency Clinical Hospital of Târgu-Mures, conducted between January and July 2019. Data were taken from the hospital records from observation sheets and the electronic database. **Results:** In our study, 35% of children presented the deviation from Ponderal Index of which 13.33% were first degree dystrophic, 11.67% were third degree dystrophic and 10% were obese. 21.67% of patients presented the deviation from birth-weight norms. The third degree of Ponderal Deficiency of Energy-Protein-Malnutrition in function of anthropometry was observed in 11.67% of subjects, moreover 3.33% of children had deviation levels of total serum protein and 6.67% had deviation level of serum albumin. 11.67% were hospitalized multiple times, 1.67% died, and deviant values of Hemoglobin were observed in 36.67% of children. **Conclusions:** The study confirmed that malnutrition prevails among a significant proportion of children born to teenage mothers and should be considered as a risk factor for various forms of complications and pathologies. Furthermore, implementation of adequate health education programs is greatly needed.

Keywords: nutritional status, children malnutrition, teenage mother, adolescent mother

COMPOSITION OF INTESTINAL MICROBIOTA IN PATIENTS WITH INTESTINAL TRANSIT DISORDERS

Mihaela Tapescu[1], Pop Camelia, Monica Tarcea[1]

[1]UMFST Tîrgu Mureş

Background: Worldwide incidence of intestinal transit disorders ranges between 12-18% of individuals, based on hospitals reported cases. Sequencing the 16S rDNA gene, used to analyse the composition of the intestinal microbiota, a strong correlation was made between intestinal microbiota dysbiosis, chronic constipation, functional constipation and irritable bowel syndrome. **Objective:** The aim of this paper was to determine certain patterns in the gut microbiome of patients with intestinal transit disorders, by analysing intestinal bacteria outlying the allowed thresholds. **Material and methods:** The study was conducted on a group of seventeen Targu-Mures individuals diagnosed with intestinal transit disorders between May and November, 2020. The analysed microbiome tests were performed at the Ganzimmun Diagnostic Laboratory, in Germany. The main working method was to identify gut bacteria which were outlying reference interval values. Then, inspect each bacterium in terms of metabolism and food requirements, in order for it to thrive or decay, inside the microbiota. **Results:** Regression statistics provided *p-values* ranging between 0.0001-0.05, expressing very high degree of confidence for five comparative sets of bacteria among *Actinobacteria, Bacteroidetes, Proteobacteria, Firmicutes, Ruminococcus* and *Alistipes*. *Ruminococcus* bacterium values, responsible for fibre degradation, were below the minimum reference interval limit for the entire study group. The next bacteria with significant out of range values were *Bacteroidetes*, varying between 70-90%, *Oscillibacter* and *Escherichia*, varying between 60-70% and *Alistipes*, with 60% variation. These values are of great significance, offering a clearer understanding of the gut microbiome dysbiosis and how it affects the functional constipation and influences the irritable bowel syndrome, among patients. **Conclusions:** Clear intestinal microbiota patterns are emerging among adults and children, revealing similarities and variances among them. This may lead to exclusive treatment and customized diets with improved outcomes for patients with intestinal transit problems.

Keywords: Gut Microbiome, Intestinal Transit Disorder, Dysbiosis, Constipation

PHYSIOTHERAPY

BRACHIAL-PLEXUS PALSY NEWBORN RECOVERY

Chiva-Molnar George[1], Chiva-Molnar George[1]

[1]Universitatea “Constantin Brancusi” din Targu-Jiu-Facultatea de Ştiinţe Medicale şi Comportamentale - Master Kinetoterapia în afecţiunile ortopedice şi în traumatologia sportivă

Background: Obstetric brachial plexus palsy, a complication of childbirth, occurs in 1 □□ per 1000 live births internationally. Traction and/or compression of the brachial plexus is thought to be the primary mechanism of injury and this may occur in utero, during the descent through the birth canal or during delivery, also with a clavicle bone fracture.Affected nerves.Dorsal scapular, suprascapular, lateral pectoral, long thoracic, musculocutaneous, radial, median and phrenic nerves.Sensory deficits. Radial side of the deltoid, forearm and hand **Objective:** My main objective is the full recovery movement for the affected arm, and gain natural movement and coordonation. **Material and methods:** This research was conducted in private rehabilitation institutions. The infant came with parents at Medical Center LaserTherapy (Centrul Medical LaserTerapie) from Petroşani Initial and final evaluations included active and passive range of motion assessment, muscle strength assessment, visual analog scale.We did 5-6 times a week for 2 months, we start the recovery after a month becuase we wait for the collar bone to recover completly. **Results:** The infant went from no movement to good movement natural coordonation and active range of motion back to normal.Sometimes when the infant don't cope well with therapy , we was tired after exercises. **Conclusions:** Incipient physical therapy is vital for a good recovery after Brachial-Plexus Palsy Newborn , increasing range of motion , muscle strength and normal coordonation.

Keywords: infant, plexus palsy, Brachial-Plexus, physical therapy

---

ROLE OF PHYSIOTHERAPY PROGRAMS IN PATIENTS WITH PARKINSON DISEASE

Szidónia Beáta Tamási[1], Nicolae-Emilian Neagu[1]

[1]UMFST Tîrgu Mureş

Background: Parkinson disease is the second most common neurodegenerative disease after Alzheimer. It most commonly begins in patients aged 40-70 years. This disease is characterized by the destruction of neurons responsible for the production of dopamine which plays an extremely important role in the movement. **Objective:** The main objective of this research was to show the importance of physiotherapy rehabilitation programs as adjuvant therapy in addition to the gold standard treatment with Levodopa of Parkinson disease. **Material and methods:** Our research involved 20 subjects, aged between 56 and 88 years diagnosed with Parkinson disease from a private recovery institution in Bucharest. During 3 months 14 of this patients followed a regular physiotherapy program 5 times/ week and 6 followed a reduced program 2 times/week due to comorbidities. In this research we used the following methods: observational method, measurement and recording method, statistical-mathematical processing method and graphic method. **Results:** The study group was represented by 20 patients with Parkinson disease, of whom 12 (60%) were male and 8 (40%) female. In addition to the three main symptoms of Parkinson disease present in these patients (muscle stiffness, bradikinesis, tremor), 60% had micrography, 85% coordination and balance disorder, 90% postural instability, 45% dysphasia and hypomymia. **Conclusions:** A first general conclusion is that patients with Parkinson who follow physiotherapy programs remain active and can improve their mobility and quality of life. Our final assessment underlined that some of the secondary symptoms of Parkinson disease are significantly improved when subjects perform a rehabilitation program.

Keywords: Parkinson disease, Physiotherapy, Rehabilitation

PHYSICAL EDUCATION AND SPORT

ATHLETIC MOUTHGUARDS AT ,,CRASH TEST”

Iunia Moldovan[1], Farcas Rares, Denisa-Paula Trif, Cristina Molnar-Varlam, Cristina Molnar-Varlam[1], Adela Badau[1]

[1]UMFST Tîrgu Mureş

Background: Mouthguards worn by athletes are made from varying materials and involve many technical-procedures. Owing to this, they have differentiated protective results on direct or indirect impact that involve traumatic factors. **Objective:** Demonstration in vitro of the protective efficacy of sports mouthguards on the integrity of teeth and dental-arches in athletes with high traumatic risks in the oro-maxillary sphere. **Material and methods:** Performing simulations to highlight the protection capacity of sports mouthguards. The impact and effect on the oral-cavity differs depending on the traumatic factor, its direction and intensity but also on the type and material from which the mouthguard is made. The study was performed by different simulations on acrylic-models with different splints by crush testing methods adapted from the dental-laboratory. We analyzed the changes that occurred on the mouthguards or on the acrylic arches depending on the type of mouthguard, the nature of the impact and the blunt body, the intensity of the force, the mode of action. **Results:** Prefabricated or ,,made at home" sports mouthguard are less resistant and less effective compared to professionally made and finished splinters by lamination-technique. The mouthguard made of special resilient resins and silicones requires a longer processing time and can only be obtained by specialists. The resistance to direct impact with the same type of blunt body and the same force indicates the superiority of the effectiveness of the individualized mouthguard finished in the dental-laboratory. **Conclusions:** Athlete's mouthguard made by a specialist are superior and offer adequate protection against impact. In athletes, we have frequently found a problem related to the acceptability of these mouthguards that require one or more visits to the dental office. Athletes believe that the ideal mouthguard is the one that the athlete accepts, the costs and marketing having an important role in the decision to have a certain type of mouthguard.

Keywords: mouthguard, resistence, sport, impact

INFLUENCE OF FATIGUE ON THE FREE-THROW SHOT

Norbert Steff[1], Simona Făgăraş[1]

[1]UMFST Tîrgu Mureş

Background: Thanks to the evoution of basketball the game became more dinamic and fast,with both intense-short-movements and intense-longer-movements,alltogether with the physiological demands of a basketball game,wich require both aerobic and an-aerobic energy delivery systems,we assume that fatigue can have a big impact on a free-throw shot. **Objective:** The objective of this paper is to analyze the kinematics and percentages of free throw shots for 10 male students,from 8th grade and to implement a program to improve their shot kinematics and percentages when tired. **Material and methods:** For filming I used an Iphone8 with 4k video camera and 60 fps.,the videos were processed after in "Kinovea",a video player for sport analysis.There were 2 series of videos made with 2 videos in each series for each student.The first series of videos was made on 16.09.2020,the second one on 10.02.2021,each series containing 2 videos,one after warm-up,one at the end of practice when tired.With the help of the results from our first analysis,we made a plan for the entire first semester of the 2020-2021 school year where the students executed special drills and recieved special indications to improve their free-throw kinematics and percentages when tired. **Results:** The results showed us that there was a 11% decrease in free-throw percentage,when tired,at the begginning of the program and that the kinematics of the free-throw shot were very different from student to student.After implementing a whole semester of 20 minutes/week of work,there were significant improvements in their shot percentages,even after warmp up,from 59%->65% and at the end of the class,when tired,from 48%->58% with their kinematics improving significantly as well. **Conclusions:** Because of the big differences in the kinematics observed in the initial testing,we recommend to give special indications to each students,this method proven to be succesfull and we can confirm,that fatigue has an influence on the free-throw shot,wich with special training can be improved.

Keywords: Free-throw, Fatigue, Kinematics

THE EVALUATION OF THE PHYSICAL ACTIVITY LEVELS AND THE IMPACT OF THE PANDEMIC ON THE PHYSICAL ACTIVITY LEVELS AND BODY WEIGHT OF STUDENTS FROM TÂRGU MUREȘ

Flaviu Alexandru Dichiu[1], Ribiana-Iolanda Bălaș[1], Valentin Nădășan[1], Adela Bădău[1]

[1]UMFST Tîrgu Mureş

Background: Physical activity is a component of a healthy lifestyle not to be neglected. Lock-down measures during the COVID-19 pandemic negatively affected the physical activity level of the general population. Students represent a vulnerable group with regards to reductions in physical activity levels. **Objective:** The objective of this study was to evaluate the physical activity levels of students at George Emil Palade University of Medicine, Pharmacy, Science and Technology of Târgu Mureș (UMPhST) before and after the state of emergency in Romania. **Material and methods:** The study was designed as an observational, cross-sectional study. The study sample included students in the 1st and 2nd year. Data was obtained using the short version of the International Physical Activity Questionnaire (IPAQ) and some additional questions regarding the impact of the COVID-19 pandemic on physical activity levels and body weight. **Results:** The mean levels of physical activity were 1313.9 MET-min/week for vigorous activity, 582.5 MET-min/week for moderate activity, and 1101.4 MET-min/week for walking. The overall mean for physical activity was 2997.91 MET-min/week. As far as the level of physical activity, 23.7% of the students were in the low level category, 37.2% moderate level category, and 39.1% in the high level category. During the state of emergency, 90.8% of the students had a reduction in physical activity levels. The most affected types of physical activity were walking, cycling, and jogging. Weight gain during the emergency state was reported by 26.6% of the students. The mean weight gain was 3.96 kg. At the time of the survey, 94.3% of the students reported a lower level of physical activity compared to the level before the state of emergency. **Conclusions:** Students at UMPhST became more sedentary during the state of emergency, put on weight, and didn't return to prepandemic levels of physical activity.

Keywords: IPAQ, physical activity level, medical university students, period of the state of emergency

THE STUDY OF THE EXPLOSIVE STRENGTH DEVELOPMENT THROUGH THE MEANS OF GYMNASTICS

Nagy-Adorjáni Norbert[1], Dana Bădău[1]

[1]UMFST Tîrgu Mureş

Background: This is a study of the explosive strength development through the means of gymnastics.I have chosen this topic because explosive strength is a very important ability in the sport which I practiced, and I would like to know more about it. **Objective:** The study identifies a set of physical exercises of gymnastics in order to realize explosive strength for the pupils in secondary school (5th-8th grade.). **Material and methods:** The study took place during the period of 08.02.2021 and 22.03.2021 with 17 specimens, pupils between the ages 11-15. The physical tests that were carried out: squad jump test, 15 second squad-jump test and stiffness test. Statistic processing was made with the SCPSS24 software. The testing device used for processing the test subjects was Optojump Next. With the help of this machine the following tests were carried out: squad-jump test, 15 second squad-jump test and stiffness test. The squad-jump test is a single jump and evaluates the jumping skills and the maximum explosive strength of the legs, quantifying the time of flight and the height of the jump. The 15 second squad-jump consists of 15 second constant consecutive jumps with bent knees, quantifying contact time, time of flight, the height and power of the jumps. The stiffness test consists of 7 successive jumps with stretched out legs, quantifying contact time, flight time, height and power of the jumps. **Results:** The most significant progress displayed in the present study Squad-jump were: 31.6cm-37.5cm; (height).Generally all the results were statistically significant. **Conclusions:** The results corroborate the hypothesis of the study, the fact that the explosive strength can be optimized through specific gymnastic methods at he level of secondary school (5th -8th grades) during physical education class.

Keywords: explosive strenght, jump, height

PRECLINICAL DENTAL MEDICINE

ACRYLIC RESINS: HOW TO IMPROVE THEM

Alessandra-Aniela Cerghedi[1], Cristina Molnar-Varlam, Zita Fazakas, Cristina Molnar-Varlam[1], Zita Fazakas[1]

[1]UMFST Tîrgu Mureş

Background: Self-curing and thermopolymerizable acrylic resins are used to make the bases of, to repair and to optimize mobile prostheses. Maintaining their quality over time depends on a number of local and general factors. **Objective:** Demonstration of the hypothesis that the direct contact with aggressive substances leads to the degradation of the monomer in PMM with the formation of ketones, unstable compounds in the oral cavity and negative consequences subsequent to this change. **Material and methods:** The test work is a research in vitro. The study group included 20 samples of acrylic resin subdivided into 2 categories: the first category included PMMA (n = 12), and the second category included PMMT (n = 8). In each subgroup, some recommended parameters were intentionally omitted and were compared with the results of those that were properly prepared (powder / liquid ratio, thermal regime). The resulting samples were subjected to direct contact with various chemical and physical reagents and the preservation of their quality was compared, highlighting: which is better? Following the spectrophotometric analysis in order to quantitatively determine the reflection properties of the substance by comparison with acetone in the nail polish, a very similar concentration of 0.515 λ was observed. **Results:** Significant changes were found both in PMMA and PMMT which were incubated at 37 ° C in thermostat bath. The Legal chemical reaction resulted in a sudden change of color and a marked intensity of it, which revealed the existence in large quantities of ketone bodies. For PMMA and PMMT that were stored at room temperature, a smaller amount of ketone bodies was observed highlighted by a pale color of the substance. **Conclusions:** Increasing the quality of PMM depends directly on the accuracy of work stages, local (oral cavity), digestive (gastric juice) and dietary (alcohol) factors that influence the life expectancy of PMM and their qualities.

Keywords: acrylic resins, ketone-bodies, spectrophotometer, gastric juice

---

DENTISTRY: IT'S ALL GREEK TO ME!

Melina Donca[1], Csilla Bukhari[1]

[1]UMFST Tîrgu Mureş

Background: Dentistry has long been a famous profession, chosen yearly by hundreds of people. Even though it has its roots in the ancient world, it was only established as a concrete, singular science in the late 18th century, keeping the terminology from Latin and Ancient Greek. **Objective:** The study aimed to assess the ability of dental students and dentists, to recognize the dental terms with Greek origins, and as an extension to that, if a medical terminology course would make them able to better assimilate the medical terms. **Material and methods:** A questionnaire was created and distributed among students and dentists. A total number of 103 responses was gathered (73 students, 30 dentists) giving an intriguing mosaic of answers. Open questions were added to let the participants list medical and non-medical words in Greek. Other questions were about word and prefixes meaning recognition, and whether medical term standardization using Greek words is helpful or not. In the end the participants were asked to identify if a given word had Latin or Greek origins, in order to disclose common confusion in word etymology. **Results:** The varying responses showed that dentistry students are familiar with word etymologies. Moreover, 71,8% of the participants found helpful the term standardization based on the Greek language. Along that, 54,4% of students and former graduates believe that a course of etymology in the curriculum of Dental school would be beneficial. **Conclusions:** At first linguistics and dentistry don't seem to share much in common, but if one looks closely, much of the legacy of dentistry can be explained by tracing back the etymology of the used terms. Besides, one can only grow wiser when knowing about his/her past!

Keywords: etymology, dental terms, origins

INCOMPATIBILITIES OF DENTAL MATERIALS

Ioana Piciorea[1], Cristina Molnar-Varlam[1]

[1]UMFST Tîrgu Mureş

Background: Nowadays, due to the globalization, liberalization and modernization of dentistry, there are always

new materials. For a good dental practice, it is useful for the practitioner to inform himself and use the materials according to the instructions given in the leaflet, in order to ensure maximum success. The properties of materials can be negatively influenced by seemingly "harmless" external factors, such as: ambient temperature and humidity and the interaction of materials with other substances used in the oral cavity. **Objective:** The purpose of this study is to highlight the incompatibilities of materials with applicability in dentistry, the perceptible changes in the properties of materials in contact with external factors in the dental office and errors that may occur in preparation. **Material and methods:** This study involved the usage of 5 impression materials: addition silicone, condensation silicone, polyether, and polyvinyl siloxane. We used aluminum chloride, ferric sulfate, aluminum sulfate and zinc chloride as substances for gingival retraction. The effects of the retraction material, retraction cords and latex gloves were tested *in vitro* on each impression material. **Results:** The polyether setting reaction was inhibited by all gingival retraction substances used. In the case of silicones, the setting reaction was inhibited only by sulfuric solutions. As for latex gloves, they turned out to be incompatible with polyethers, addition silicones and polyvinyl siloxanes. **Conclusions:** Gingival retraction solutions can inhibit the polymerization reaction of impression materials, and thus can affect the details of the impression. Polyethers proved to be the most sensitive impression material, probably due to the polymeric bonds. Latex gloves can inhibit the polymerization of addition silicones, polyethers and polyvinyl siloxanes, but not that of hydrophilic and hydrophobic condensation silicones.

Keywords: dental material, elastomers, gingival retraction, latex gloves

THE USE OF PLATELET-RICH FIBRIN IN ENDODONTIC-PERIODONTAL LESIONS

Maria Ioana Onicas[1], Laura Narita[1], Alexandru Mester, Alexandru Mester[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Endodontic-periodontal lesions involve both endodontic and periodontal structures, that are connected through the apical foramen, dentinal tubules, lateral and accessory canals. In addition to the endodontic and periodontal treatment, regenerative procedures are also needed for the regeneration of the destructed tissue. Platelet-rich fibrin (PRF) is an autogenous material that stimulates healing in bone and soft tissue. **Objective:** The purpose of this study was to determine if PRF is effective in treating endodontic-periodontal lesions. **Material and methods:** PubMed and Google Scholar databases were searched to discover all significant articles. The following combination of keywords was used: ("endodontic-periodontal lesions" OR "endo-perio lesions" OR "endo-periodontal lesions" OR "endodontic periodontal" OR "endoperio") AND ("platelet-rich fibrin" OR "PRF"). The eligibility criteria were full-text case reports or case studies published in English, that addressed endodontic and periodontal lesions treated using PRF. The exclusion criteria were studies on animals, systematic reviews and meta-analysis studies. **Results:** 14 articles, published between 2009 and 2020, matched the inclusion criteria and were selected for the study. There were favorable outcomes regarding the use of PRF in endodontic-periodontal lesions. In most studies, a combination of bone graft material and PRF was used. The efficiency of PRF used alone for regenerative therapy was observed in two studies and both showed a great improvement in the clinical parameters. Also, better results were noticed when the bone graft was associated with PRF rather than the bone graft only. **Conclusions:** The inclusion of the PRF in the regenerative treatment protocol proved to be effective in combined endodontic and periodontal lesions. In order to observe its efficacy over time, more clinical studies are needed to be conducted in the future.

Keywords: Endodontic-periodontal lesion, Platelet-rich fibrin, PRF

SELF-PERCEPTION OF ORAL HEALTH AND DENTAL ANXIETY IN A RURAL STUDENT POPULATION

Laura Narita[1], Maria Ioana Onicas[1], Alexandru Gratian Grecu, Alexandru Gratian Grecu[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Oral health related quality of life (OHRQoL) and dental anxiety are widely investigated concepts within the literature and are strongly linked to the patient's attitude towards the dentist and one's own state of objective oral health. **Objective:** The aim of the present study was to evaluate OHRQoL, dental anxiety and the relationship between these concepts, in a sample of students from a rural environment. **Material and methods:** The Romanian variants of the Pediatric Oral Health Impact Profile-19 (COHIP-19) and the Dental Subscale of the

Child Fear Survey Schedule (CFSS-DS) were applied to a sample of highschool students (n = 100, 49% M, age: 14-17; average age: 15.39 years) from Câmpeni, Romania. The questionnaires were applied in paper/pen format. Prior to the distribution of the questionnaires, informed consent was obtained. The subscale and ovarall COHIP-19Ro and CFSS-DS scores were calculated. The interrelationship between OHRQoL and dental anxiety was investigated using Pearson correlations; differences in self-perception of oral health and dental anxiety between female and male subjects were assessed using the t-test. **Results:** The lowest COHIP-19Ro scores were registered for the Functional Well-Being subscale (average score 13.88). For the total sample, the average score of CFSS-DS was 24.54, indicating the perception of low levels of dental anxiety. No correlations were reported between self-perception of oral health and dental anxiety; however, the t-test revealed statistically significant differences in respect to gender, at the level of the COHIP-19Ro scores, for the subscales Oral Health t (98) = 2752, p = 0.007, Functional Well-Being t (85.67) = 3.058, p = 0.003, Socio-Emotional Well-Being t (91.42) = 2.583, p = 0.011, and the total score t (98) = 3.271, p = 0.001. **Conclusions:** The present study indicated increased levels of self-perceived OHRQoL, together with a low self-perceived dental anxiety. Statistically significant OHRQoL differences were identified in respect to the variable gender.

Keywords: quality of life, oral health, dental anxiety, children

---

INFLUENCE OF MARGINAL FIT AND CEMENT TYPES ON MICROLEAKAGE OF METAL-CERAMIC CROWNS: A SYSTEMATIC REVIEW

Loai Haddad[1], Diana Cerghizan[1]

[1]UMFST Tîrgu Mureş

Background: Metal-ceramic crown system has been highly used due to its' strength properties; Although, finish line preparation as well as cement type and other factors can gradually affect the marginal fit of the crown and increase the microleakage amount. **Objective:** The aim of this review is to evaluate in the literature the marginal fit of metal-ceramic crowns using different cement types and it's effect on microleakage amount. **Material and methods:** Online search was made in two parts using Google Scholar and PubMed databases, the 1st part was made following combination of keywords: (marginal fit or gap) and (finish line or margin design) and (metal-ceramic crown or coping); the 2nd part was made following combination of keywords: (marginal gap or microleakage) and (cement or luting agent) and (metal-ceramic crown or coping). No specific year of publicity, articles with "Free Full Text" or "Abstract", which were written in English language were used. **Results:** Of 162 studies identified, 23 were selected and included in this review regarding the criteria. The 1st part of our review included 11 articles, 81.8% of them worked on metal-ceramic crown system, different finish lines were used in tooth preparation. The marginal gap was measured using different techniques which eventually gave different point of views: 63.6% of the articles agreed that the finish line has a significant effect on marginal fit and gap; more specific, the shoulder finish line exhibited the highest values in marginal gap comparing with other finish lines. The 2nd part used 12 articles, all agreed on the influence of the cement type on microleakage and marginal discrepancy; articles that used zinc phosphate cement agreed on high microleakage amount but resin cement exhibit the least microleakage. **Conclusions:** Regardless of many different point of views the majority agreed the finish line design as well as the cement type influence the marginal fit and microleakage amount.

Keywords: Marginal fit, Marginal gap, Microleakage, Finish line

CLINICAL DENTAL MEDICINE

MODERN METHODS OF IMAGING EVALUATION DURING THE ORTHODONTIC TREATMENT

Isam Haj-Osman[1], Mariana Păcurar[1]

[1]UMFST Tîrgu Mureş

Background: The correlation between the dentomaxillofacial anomalies and the biological processes associated with the bone remodeling constituted subjects of research in orthodontics and medical imaging **Objective:** The existence of a large number of adults with lateral deviation of the mandible and facial asymmetries which require fixed orthodontic treatment, determined us to do an imaging study of the cranial and facial parameters through facial and profile teleradiography **Material and methods:** The study was conducted in the Department of Orthodontics of the Faculty of Dentistry and The imaging Centre Dr. X-ray in Tîrgu-Mureș. The treatment group consisted in 35 patients of which 20 were females and 15 were males. The subjects were aged between 18 and 25, diagnosed with facial asymmetries and placed under orthodontic treatment. Not only that the study evaluated 11 linear angular cranio-facial, but also analysed 7 anthropological parameters which were registered before the orthodontic treatment, one year into the treatment and at the conclusion of it. Each patient placed under this treatment went through facial and profile teleradiography. Therefore, the teleradiogram affirmed the correlation between the planes and angles of the base of the skull and the bases of the maxilla and mandible. **Results:** The modification of different components of the base of the skull or base angulation, were considered as potential causes of facial asymmetries. Positive and statistically significant correlations have been found between the foramenian angle values (N,O-Ba), sphenoidal angle (N,S-Ba), clivus length (S-Ba) and mandibular linear parameter values **Conclusions:** Cranio-facial measurements play an essential role in establishing the diagnosis and prognosis of mandibular lateral deviation and in, ultimately, recommending the adequate treatment. The clivus length is one of the key factors that influence the relation between the skull base and position of the mandible in the facial scheme

Keywords: orthodontic, teleradiography, lateral deviation, medical imaging

---

THE INFLUENCE OF THE COVID-19 PANDEMIC ON THE MANIFESTATIONS OF BRUXISM IN THE DENTO-MAXILLARY APPARATUS

Bianca-Maria Neacșu[1], Adrian Muica[1]

[1]UMFST Tîrgu Mureş

Background: Bruxism is an abnormal repetitive movement disorder characterized by jaw clenching and tooth gnashing and grinding. Many studies have shown a correlation between bruxism and stress, which over time will affect the quality of life. **Objective:** The aim of the study was to observe whether the stress caused by the global Covid-19 pandemic influenced the manifestations of bruxism on the dento-maxillary apparatus. **Material and methods:** To carry out this statistical study, we used as a method of investigation a questionnaire with closed and semi-closed questions, to which 103 people answered, most of them being medical students suffering from bruxism. **Results:** Most of the answers highlighted that the stress caused by the pandemic had a major influence on the manifestations of bruxism, most of the subjects finding it difficult to manage the emotions and stress of this period. A percentage of 68.9% answered that their manifestations had worsened, and 79.6% neglected the consultations at the dentist. Also, 34% of them answered that they have been suffering from bruxism for less than 1 year, which means that the disease started at the beginning of the pandemic. **Conclusions:** Bruxism is a condition triggered by several factors, but stress is the major one, so its manifestations worsened during the Covid-19 pandemic. Also, most subjects stated that the pandemic affected them emotionally worsening the quality of sleep and life.

Keywords: Bruxism, Covid-19, Stress

THE USE OF TITANIUM-REINFORCED ZIRCONIA ABUTMENTS FOR SCREW RETAINED CROWNS AND BRIDGES.

Randy Jowad Hachem[1], Kinga Jánosi[1]

[1]UMFST Tîrgu Mureş

Background: With the major advances in the field of fixed prosthodontics and the increased esthetic demands from the patients, prosthetic restorations fixed on dental implants have become more popular than ever before. However, a vast choice of implant abutments is available with different material types, each having specific advantages and disadvantages. Furthermore, the fixation mechanism of the restoration whether cemented or screwed is also a topic of debate. **Objective:** The aim of this clinical study is to demonstrate through a clinical case the use of titanium-reinforced zirconia abutments as they are growing in tendency in today's treatment modalities because of their compatibility with implant interface, that they help in achieving esthetic results and that they're essential component of screw retained bridges. In contrast, to demonstrate the effectiveness of classic laboratory milled abutments in terms of function and esthetics. Finally, to compare the prognosis of cemented vs screwed restorations. **Material and methods:** The research was carried out on a clinical case performed in a dental office in Târgu-Mures, on a patient requiring a total oral rehabilitation with titanium-reinforced zirconia and classic laboratory milled abutments, used for screw and cement retained zirconia ceramic restorations **Results:** Both types of restorations showed positive outcome in terms of esthetics and function. The patient was pleased with the results. **Conclusions:** Within the limitations of this clinical study, we can state that titanium base zirconia abutments are compatible with implant interface, they help to achieve good esthetic results and they are essential components of screw-retained restorations. Screw retained bridges have a better long-term prognosis due to their retrievability than cemented ones, which are more esthetic and allow some degree of underlying implants angulation.

Keywords: Titanium-reinforced Zirconia abutments, screw retained restoration, zirconia ceramic bridge

ENDODONTIC LUTING CEMENTS BETWEEN RESISTANCE AND FAILURE.

Talpa Danu[1], Cristina Molnar-Varlam, Lazăr Nicolae-Alexandru, Viorel Talpa[1], Cristina Molnar-Varlam[1], Razvan Cazacu[1]

[1]UMFST Tîrgu Mureş

Background: This study was conducted to evaluate the resistance strength between three different intraradicular posts and to analyze the types of failure that occurred in the cement after decimentation. **Objective:** Our main purpose was to measure the pull-out resistance strength between anatomical posts and conventional posts with rough and glossy surfaces, using four different types of cement and to compare the failure mode between the used cement. **Material and methods:** Seventy single-rooted human teeth with post space prepared after endodontic treatment were divided into seven groups (n=10). The posts were cemented with: glass ionomer cement, resin-modified glass-ionomer cement, dual resin cement, and zinc phosphate 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. After testing the pull-out bond strength with a stereomicroscope we analyzed the types of failure. **Results:** 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. In case of sandblasted posts, the highest failure mode was type 4 (60%) followed by type 2 (30%) and type 3 (10%). In the case of glossy posts, the highest failure mode was type 1 (65%) followed by type 4 (20%) and type 3 (15%) In the case of anatomical posts the highest failure mode was type 4 (55%) followed by type 1 (25%) and type 3 (20%). **Conclusions:** Sandblasted metal post has shown a higher traction force than the smooth ones. Chemical adhesion of resin-modified glass ionomer cement gives similar results as mechanical retention in the case of custom cast posts with rough surfaces. Furthermore, posts with different surfaces exhibited different failure modes, type 4 being the highest.

Keywords: cements, resistance, radicular retention, sandblasted

EFFICIENCY OF PERIODONTAL PROBING: COMPARATIVE STUDY OF THE ELECTRONIC PERIODONTAL PROBE VS FIRST GENERATION PERIODONTAL PROBE

Cristiana Parus[1], Maria Alexandra Mârțu[1], Sorina Solomon[1]

[1]UMF Gr. T. Popa Iaşi

Background: Both conventional periodontal probing (with a first generation Williams type probe) and electronic periodontal probing were tested on a group of 57 patients who participated in the study. **Objective:** In the case of periodontally challenged patients periodontal probing is an essential step in the diagnosing process. Several types of periodontal probes have been described and the technology keeps evolving to include OCT, digital 3-D imaging and endoscopic capillaroscopy. This article aims to evaluate comparatively two types of periodontal probes: first generation periodontal probes and electronic periodontal probes. **Material and methods:** The patients were submitted to a clinical examination which included assessment of periodontal clinical indices and periodontal charting (both physical and digital), with the purpose of establishing a periodontal diagnosis and treatment plan. Also, for the purpose of comparing the advantages and disadvantages of both probing methods, the time required for each type of probing and charting and the degree of patients' tolerance in both cases were subjected to comparative analysis by means of a questionnaire completed by each patient at the end of the clinical examination. **Results:** When the electronic periodontal probing method was employed the generation of the periodontogram results were both faster and more accurate than in the case of conventional periodontal probing. **Conclusions:** The electronic periodontal probing is more efficient comparative to the first generation type probe, being an effective tool for measuring the gingival sulcus, periodontal pockets, but also to determine the risk of developing periodontal disease by means of generating the electronic periodontogram and through the digital analysis possibilities.

Keywords: periodontal disease, confentional probe, electronic probe, periodontal diagnosis

THE EFFECTIVENESS OF TWO CHELATING AGENTS IN REMOVING CALCIUM HYDROXIDE FROM THE ROOT CANAL

Cristian- Nicolae Cheres[1], Monica Monea[1]

[1]UMFST Tîrgu Mureş

Background: Calcium hydroxide is still widely used in the treatment of many endodontic conditions. If not completely removed from the root canal, it might have a negative influence on the sealing ability of the endodontic materials. **Objective:** The aim of our study was to evaluate the effectiveness of ethylenediaminotetraacetic acid (EDTA) and citric acid (CA) in removing the calcium hydroxide from the root canal, prior to the final endodontic filling. **Material and methods:** We used 20 extracted teeth endodontically prepared using ProTaper files, in which calcium hydroxide was packed with Lentulo files and covered with Cavit. After 7 days, teeth were randomly assigned in 2 study groups according to the chelating agent used : Group A - 17% EDTA, Group B- 10% CA. On radiographs we evaluated the apical and middle thirds of the canals covered with calcium hydroxide, using ImageJ 1.50 computer program. For statistical analysis SPSS 19.0 was used and the comparison between the study groups was made with Kruskal-Wallis and Mann-Whitney tests; the level of significance was set at $p<0.05$. **Results:** The clean areas in the middle thirds of the canals ranged between 73,2%-95% and 71,5%-93,4% and in the apical thirds between 67,4%-86,2% and 61,2% - 75,8% for EDTA and CA respectively. For the apical thirds, 17% EDTA was more efficient ($p<0.05$). **Conclusions:** Calcium hydroxide has not been completely removed from the root canals by either of the chelating agents used. However, 17% EDTA proved to be more efficient in the cleaning of the apical thirds of the root canals.

Keywords: calcium hydroxide, EDTA, citric acid, root canals

PHARMACY

A NEW PERSPECTIVE ABOUT GLUTAMIC ACID: FROM THE TOXICITY OF MONOSODIUM GLUTAMATE TO THE ANTICANCER POTENTIAL OF SOME DERIVATIVES

Octavia-Laura Moldovan[1], Alexandra Sandulea, Aura Rusu[1]

[1]UMFST Tîrgu Mureş

Background: Glutamic acid (GLA) has been studied both for medical purposes and use in the food industry. Its sodium salt, monosodium glutamate (MGL), is widely used as a flavour enhancer. A diet that includes MGL in various amounts is very controversial, MGL being incriminated for toxicity at multiple histological levels. On the other side, nowadays, it is proved that derivatives of GLA present antitumor potential. **Objective:** This paper aims to highlight the MGL toxicity as a consequence of abusive consumption and to present the potential of GLA's derivatives to extend the anticancer therapy. **Material and methods:** The analysis of Web of Science, PubMed, Science Direct, and Toxnet databases, using as keywords "monosodium glutamate", "chronic toxicity", "toxic dose", "oxidative stress" and "anticancer effect" was conducted. **Results:** A dose-dependent impairment has been noticed, especially on rats, at multiple histological levels after MGL long-term consumption. The mechanism responsible for toxicity is oxidative stress, with an imbalance between the oxidising and antioxidant species. This hypothesis was confirmed by correlating histological analysis with biochemical tests. GLA's complexes with classic anticancer agents presented an improved safety profile, with a targeted mechanism and greater effectiveness in certain types of cancer than traditional anticancer therapy. Also, more GLA analogues could be designed as potential anticancer drugs. **Conclusions:** Experimental studies on animals have proved that MGL can produce biochemical and histological alterations at different levels. Among the human population it is challenging to observe the chronic toxicity of MGL consumption, a review of the consumer's daily MGL intake being necessary. Also, special attention is required to some GLA complexes and analogues to improve oncological therapies.

Keywords: monosodium glutamate,, chronic toxicity,, toxic dose,, anticancer effect

---

DEVELOPMENT AND EVALUATION OF CAFFEINE GRANULES BY WET GRANULATION TECHNIQUE

Octavian Arapan[1], Robert-Alexandru Vlad[1], Adriana-Daniela Ciurba[1]

[1]UMFST Tîrgu Mureş

Background: Caffeine is one of the most consumed natural stimulants in the world that can be used for pain management, hypotension, and its energizing effect. **Objective:** This study aimed to develop caffeine granules using two different binders and two different concentrations, resulting in four formulations (G1, G2, G3, G4). Another purpose was to analyse their influence on the physical and pharmaceutical properties that might occur. **Material and methods:** Four formulations with 100 mg caffeine were obtained through the wet granulation method. The ingredients used were caffeine, sorbitol, sodium starch glycolate, magnesium stearate, (polyvinylpyrrolidone) PVP_{K25} (G1 and G2), and (Hypromellose) $HPMC_{E15}$ (G3 and G4). The concentrations of PVP_{K25} and $HPMC_{E15}$ were 2% (G1, G3) and 4.85% (G2, G4). Granules have been evaluated in terms of particle size distribution, disintegration time, and dissolution behaviour at a pH of 1.2, with eight sampling points at 1, 2, 3, 4, 5, 10, 15, and 30 minutes in accord to European Pharmacopoeia. Caffeine concentration was determined using an UV-VIS spectrophotometry method. **Results:** Results showed that if the amount of PVP_{K25} or $HPMC_{E15}$ increases, an extended disintegration time will be obtained. The disintegration times recorded for G1, G2 and G3 were less than 15 minutes, with G3 having the fastest disintegration time (less than 15 seconds), whilst for G4 was almost 16 minutes. The dissolution test has shown that the amount of caffeine released increases as it follows G3>G1>G2>G4. In G3, the largest amount of caffeine was released at 10 minutes (96.42%), whilst for G1, G2, and G4, over 80% caffeine was released at 30 minutes. **Conclusions:** The amount and the type of binder influence the particle size, the disintegration time, and the amount of caffeine released. PVP_{K25} conducts to faster disintegration time compared to the $HPMC_{E15}$. The best formulation in terms of the amount of caffeine released is the G3 formulation.

Keywords: Caffeine granules,, dissolution test,, wet granulation.

HPLC CHIRAL STATIONARY PHASE VS CHIRAL MOBILE PHASE FOR CITALOPRAM ENANTIOSEPARATION

Emilia Oancea[1], Silvia Imre[1]

[1]UMFST Tîrgu Mureş

Background: Citalopram is a chiral SSRI, whose S enantiomer carries most of its pharmacologic activity and it is available both as enantiomer and racemic in pharmaceutical products. In the European Pharmacopoeia 10, R-citalopram is listed as an impurity for escitalopram. **Objective:** The aim of the study was to compare two new HPLC-UV methods for chiral separation of citalopram. The first one is based on chiral phase separation, while the second attempted a reversed-phase mechanism, using cyclodextrins as chiral selectors. **Material and methods:** Citalopram HBr working standard was solubilized in methanol before injection. For the chiral phase separation, an Ultron ES-OVM column (ovomucoid) was used. Different mobile phase compositions, based on buffers and organic modifiers, acetonitrile and methanol, were tested. For the reversed phase method, a C18 column and mobile phase containing different cyclodextrins (beta-cyclodextrin, hydroxy-propyl-cyclodextrin and sulfo-buthyl-beta-cyclodextrin) in phosphate buffer 5 mM and acetonitrile were used. The analytes were monitored at 240 nm. **Results:** The Ultron ES-OVM column, with a mobile phase containing ammonium formate 20 mM : acetonitrile : methanol 78:8:14 yielded better system suitability parameters compared to the official method from European Pharmacopoeia 10: total runtime less than 10 minutes, resolution of 1.7, tailing factor 1.4. Of the cyclodextrins tested, sulpho-buthyl-beta-cyclodextrin was the only one which allowed partial separation of citalopram enantiomers. Unfortunately, total runtime was around 1 hour for the tested concentrations of cyclodextrin, 2-4 mM, in aqueous mobile phase. Under optimised conditions with OVM column, the order of elution was escitalopram and enantiomer. The linearity was proved between 30-70 µg/mL for each enantiomer with a coefficient of determination greater than 0.995. **Conclusions:** The OVM column allows an efficient and fast separation of citalopram enantiomers, even better than the method recommended in European Pharmacopoeia 10. Unfortunately, none of the available cyclodextrins matched this performance, being unable to achieve suitable separation.

Keywords: escitalopram,, hplc,, ovomucoid

MILITARY MEDICINE

″FIBULA DE LA SUSENI″-THE RECOGNITION OF THE MILITARY MEDICINE STUDENTS' MERITOUS VOLUNTARY SERVICES DURING SARS-COV2 PANDEMIC

Roxana Chitic[1], Andra Gabriela Cristea[1], Mara Epure[1], Mihai Acon[1], Mădălina Mariș[1], Maria Dorina Pașca[1]

[1]UMFST Tîrgu Mureş

Background: As a matter of course, succour, teamwork and self-sacrifice on behalf of the society' well-being, have always been a goal for under arms people.Relating to the pandemic which shook the world, students from Military Medicine Institute,Targu Mures section, performed voluntary services, fighting the SARS-CoV2.They adhered to the guideline issued by Public Health District Authority with whom they collaborated. **Objective:** The aim of this paperwork is to reveal the military medicine students' engagement in their first, white-collar, under arms duty,by doing voluntary work in order to overcome this ongoing predicament. **Material and methods:** Our team was formed by 39 volunteers, among which 14 third year students and 25 on the second year.During a period of one month, we gathered a number of approximately 1000 laboratory papers concerning serology testing for COVID-19 with positive results,alongside the infected people'contact addresses.In this way,we performed epidemiological investigations, inquiring personal data,for example:the workplace,the address, the epidemiological link, symptomatology,as well as their onset and evolution.We also attempted to learn about their direct contacts with whom we talked,in order to make them aware of the legal requirements, entailing the quarantine and isolation periods of time, so as to prevent the spread of the disease.The inquiries were made by using encrypted devices from the Special Transmissions Service in order to protect the patients' confidentiality, on the premises of specially arranged rooms. **Results:** The fierce desire of helping jolted the volunteers into action, fact which was praised and then awarded the honorifical and highly prestigious distinction-Fibula de la Suseni.Needless to say, it was a salient moment for each military medicine student, a crucial and empowering determinant of their future careers. **Conclusions:** Committing themselves to their duty, both patriotically and medically, the students proved to be a useful helping hand for the society.

Keywords: civic duty, volunteering, military student, distinction

---

PREVALENCE OF ANEMIA IN CHRONIC HEART FAILURE PATIENTS

Roxana Sanpalean[1], Alexandra-Maria Hoza[1], Ioan Tilea[1], Dorina Petra[1]

[1]UMFST Tîrgu Mureş

Background: Heart failure is a public health problem, that can cause an increase in mortality and hospitalization rate, as well as a decline in the quality of life. Anemia is an important comorbidity, common in patients with HF and is associated with poor clinical status and more serious outcome. The pathogenesis of anemia in HF is multifactorial. The patients have several comorbidities such as: chronic kidney disease, nutritional deficiencies, chronic inflammation and diabetes mellitus. **Objective:** The aim of the study was to evaluate the prevalence of anemia in heart failure patients with reduced ejection fraction (EF), mid-range EF and preserved EF. **Material and methods:** Retrospective data from 208 adults with a diagnosis of CHF, admitted between January 2019 and December 2020, were included in this study. Subjects were divided into two groups according to the presence or absence of anemia. **Results:** The gender distribution, male-to-female ratio, was 1.16/1 (112 males) with the cohort mean age of 71.72 ± 11.10 years old (range 34 - 91 years). The mean left ventricular EF was 41.11 ± 12.18%, and mean NT-proBNP was 5003 ± 7150 pg/mL. Anemia was present in 38.94% of patients (36 women and 45 men), mean hemoglobin was 12.79 ± 2.60 g/dL, and values ranged from 6.23 to 17.90 g /dL. Low hemoglobin was associated with high NT-proBNP ($p=0.02$), low body mass index ($p<0.0001$), high creatinine ($p=0.003$), high eGFR ($p<0.0001$), and NYHA functional class III-IV ($p=0.04$). **Conclusions:** More than one-third of the patients with heart failure has anemia. Its presence is associated with NYHA functional class III-IV, low body mass index, with high NT-proBNP, high creatinine and eGFR.

Keywords: chronic heart failure, anemia, prevalence

THE STANDARD PROTOCOL FOR NEUROTOXIC AGENTS INTOXICATION. NOVICHOK- A NEW CHALLENGE OF CHEMICAL WARFARE

Mihai Acon[1], Roxana Chitic[1], Virginia-Andreea Albici[1], Laurentiu-Raul Stan[1], Bogdan-Marcel Suciaghi[1], Ramona-Rodica Carasca[1]

[1]UMFST Tîrgu Mureş

Background: Synthesized for the first time in 1854, and then, from 1938 being largely used,Neurotoxin Agents(NA) could be divided into two main categories: G-agents designed by I.G.Farben (Sarin, Tabun, Soman), as well as V-agents made by Great Britain (VM, VX,VG). The war between Iran and Iraq (1983-1988) marked the pioneering usage of these substances. Whilst in their earliest stages these agents were meant to overwhelm the enemies on the battlefield, as the time passed, NA took great magnitude by reaching the "civil battlefield ", hence the cases of Matsumoto (1994), Navalny(2020), and Skripal (2018). **Objective:** The aim of this paperwork is to outline the importance of public awareness of therapeutic measures for both civilians and armed forces. **Material and methods:** Pathophysiologically, either of the NA and the new agent Novichok inhibit irredeemably the AChE, leading to Ach accumulation at the neuromuscular junction. This fact will eventuate in people sustaining abysmal effects, like bronchial muscles' contraction, wheezing, which can be hardened by respiratory failure, bradycardia, AVB, nausea, diarrhoea or paralysis. At late stages, these conditions would be prone to decompensation, resulting in hypoxic encephalopathy, depression, or insomnia. **Results:** : In case of intoxication, first of all, the wounded must be carried from the harmful area, if clinical signs reveal. Afterwards, placing the casualties in the left lateral recumbent position is mandatory in order to prevent from fluid aspiration. Atropine combined with Oxime and Diazepam represent the first line medication, also found as the specially conceived kit(MARK I), which contain already prepared doses. The treatment can be enhanced by adjunctive therapy, for example sodium hydrogen carbonate, PEEP and antioxidants **Conclusions:** : It is of utmost and life-saving importance to recognise the symptoms shown by an intoxicated person in order to give first-aid until reaching the most convenient emergency room.

Keywords: neurotoxins, intoxication, first-aid

MEDICAL PROTECTION OF THE TROOPS AND MEDICAL EVACUATION STAGES AGAINST WEAPONS OF MASS DESTRUCTION

Laurentiu-Raul Stan[1], Mihai Acon[1], Roxana Chitic[1], Son Razvan-Catalin, Carla Adelina Sfredel[1], Carașca Ramona-Rodica [1]

[1]UMFST Tîrgu Mureş

Background: The protection of the troops and of the logistical assets from the action of mass destruction weapons is a tactical-operational, technical-engineering and medical system which's purpose is to minimize the action of harmful factors on the human resource and on the military equipment, to maintain combat capability and to ensure successful fulfillment of the established combat missions. **Objective:** We aim to identify the measures of protection against weapons of mass destruction (WMD). **Material and methods:** By consulting a wide variety of articles on this issue, we have identified some of the most significant innovations in the medical field. **Results:** The components of the protection system of the troops are: bomb squad arrangement of the troop deployment district (usage of terrain concealment properties), arrangement of the evacuation route, the existence and the functionality of the transmission, information and alert system of the troops in case of emergency and beginning of usage by the enemy of WMD (radioactive, chemicals and bacteriological pollution). The anti-epidemic, sanitary-hygienic and prophylactic measures directed to prevent actinic, chemical and infectious injuries are components of the protection system of the troops against WMD. The measures taken by the medical service in order to protect the troops and the stages of medical evacuation are part of the medical insurance of the troops' combat actions. The medical protection in the measure of the medical service aimed towards prevention and reduction of the action of ionizing waves, combat toxins and biological (bacteriological) weapons on the troops. Some of the basic measures of medical protection refer to: providing the staff with medical means of protection; preparing troops for offering first aid in the event of nuclear, chemical and biological (bacteriological) injuries. **Conclusions:** In conclusion, the responsibility for the establishment, implementation of treatment measures and evacuation lies in the hands of the medical-military institution management.

Keywords: Protection, Weapons, Medical, Troops

SOME ASPECTS RELATED TO THE USE OF ARTIFICIAL INTELLIGENCE IN MEDICINE AND HEALTHCARE: PRESENT AND PERSPECTIVES.

Miruna-Cristina Andone[1], Marius Ștefan Mărușteri[1]

[1]UMFST Tîrgu Mureş

Background: Artificial intelligence, as a subfield of computer science, can be defined mainly as the science through which deep artificial neural networks can be implemented to high-performance computers that, by simulating human reasoning, have the ability to recognize images, to solve complex problems in a very short time through the creative processing of a very large volume of data (Big Data), the ability to find solutions that exceed human analytical skills, the ability to make decisions and to self-improve continuously. **Objective:** The main objective of the study is to identify new opportunities to improve medical methods of diagnosis and treatment with the use of AI. **Material and methods:** AI uses software algorithms which operate on a basis with a large volume of complex data and can be used on a wide range of computing tools, graphics processing units, technological platforms (including intraoperative imaging and surgical robotics) and virtual networks. Starting from the European Union's "AI Watch" report, we documented the main current and future uses of AI as well as some ethical and legal issues involved in its use. **Results:** Some of the most important applications of AI in medicine and healthcare are: improving global health even for low-resource environments and developing regions, diagnosis, rapid and effective treatment of diseases (even those considered incurable), improving established treatments by personalizing them, by directing drug molecules directly to the affected organs (precision medicine) and even genetic editing for curative purposes, computer simulation of medical prostheses, early detection and assessment of pandemic outbreaks, etc. **Conclusions:** The incorporation of technologies based on artificial intelligence in medical practice will produce substantial changes in all areas of medicine and health. Thus, while some specialties will disappear, others will develop (such as those related to genetic counseling and editing, surgical robotics, precision medicine, digital medicine, extended personalized medicine, neurology, applied engineering in neuroscience, etc.).

Keywords: artificial intelligence,, neural networks,, genetic editing,, extended personalized medicine

REBLEEDING AND MORTALITY RISK FACTORS IN DIGESTIVE HEMORRHAGE OF VARICEAL ETIOLOGY

Andra Mădălina Melinte[1], Alexandra-Maria Hoza[1], Dorina-Adriana Pavel[1], Roxana Sanpalean[1], Melania Macarie[1]

[1]UMFST Tîrgu Mureş

Background: Digestive hemorrhage of variceal etiology is a life-threatening condition, which occurs as a result of portal hypertension. It is associated with an increased rate of mortality and morbidity, representing a relevant problem for public health in spite of the pharmacological and endoscopic treatment. **Objective:** The aim of the study was to observe and analyze the risk factors for re-bleeding and mortality in patients with cirrhosis and variceal hemorrhage. **Material and methods:** We made a retrospective study on a series of consecutive patients who were hospitalized in Gastroenterology Department of Targu Mures County Clinical Emergency Hospital between 01st of January 2017-31th of December 2019. For each patient there were collected demographical, clinical data and medical records which were used to establish if the presence of certain risk factors is responsible for re-bleeding and mortality. **Results:** In the studied period there were 126 patients diagnosed with variceal hemorrhage, with a mean age of 60.49± 11.736 years and a male/female ratio of 2.93/1. Gastric variceal hemorrhage was found in 8 patients with a mean age of 53.11±12.15 and a male to female ratio of 8/1 whereas esophageal variceal hemorrhage was found in 118 patients with a mean age of 60.60±12.34 and a male to female ratio of 2.83/1. By comparing means using the Mann-Whitney U test we found that bilirubin levels were statistically higher ($p=0.0001$) and hemoglobin levels statistically lower ($p=0.0069$) in patients with re-bleeding, whereas lower albumin levels ($p=0.0049$) and higher bilirubin levels ($p<0.0001$) were found in the deceased group. The mortality risk in patients with gastric varices is 20 times higher (RR=20.571, $p<0.0001$, CI 95% 6.318-66.981) than patients without this complication. **Conclusions:** Biochemical parameters such as bilirubin, albumin and hemoglobin levels can predict re-bleeding and mortality in patients with digestive hemorrhage of variceal etilogy.

Keywords: variceal hemorrhage, re-bleeding, biochemical parameters, mortality

FORENSIC TRAUMATOLOGY – CLINIAL ASPECTS

Emanuel Serban Moldovan[1], Dorina-Adriana Pavel[1], Diana-Maria Chiriac[1], Alexandra-Maria Hoza[1], Cosmin Carașca[1]

[1]UMFST Tîrgu Mureş

Background: Forensic traumatology is the branch of forensic medicine that deals with the study of the mechanisms of production of traumatic injuries and their character, having means of evaluation and appreciation. Forensic traumatology represents approximately 75-80% of the practice of forensic doctors. **Objective:** The purpose of the study is to assess and correctly describe all traumatic injuries and the circumstances in which they occurred, as well as the number of days of medical care provided. **Material and methods:** The study is descriptive, retrospective, conducted by examining all forensic certificates issued within the Institute of Forensic Medicine Targu Mures in the period 01.07-31.12 2018. The sample consists of 135 patients, representing the total number of road accident victims who presented traumatic injuries and requested the issuance of the forensic certificate during this period. The study is based on the records from the forensic certificates and follows the data of the examined persons, the injuries found and their severity and the producing mechanism. Data was collected and examined using Microsoft Excel 2010. **Results:** Data shows that 59% of people are male and 41% female. The predominant environment of origin is urban among both sexes. 49% of victims were car occupants. The main producing mechanism is hitting hard surfaces inside the vehicle for the car occupants category, respectively hit and throw for the pedestrians. Most people needed between 1-10 days of medical care but cases were recorded in all categories of gravity, including over 90 days of medical care. 400 different traumatic injuries were described, the most numerous are: excoriations (27%), bruises (20%), fractures (16%), wounds (15%) and hematomas (13%). **Conclusions:** The study provides data on the categories of road users most involved in accidents, the injuries caused and their severity. All these are important for the legal classification of the deed and for the implementation of accident prevention measures.

Keywords: Forensic medicine, traumatology, road accident, traumatic injuries

ALCOHOL AND ROAD TRAFFIC IN CLINICAL FORENSIC MEDICINE

Dorina-Adriana Pavel[1], Emanuel Serban Moldovan[1], Diana-Maria Chiriac[1], Andra Mădălina Melinte[1], Roxana Sanpalean[1], Cosmin Carașca[1]

[1]UMFST Tîrgu Mureş

Background: Drinking and driving is one of the main causes of road crashes worldwide and a well-known public health issue. **Objective:** The aim of this study is to better evaluate the role of alcohol drinking in road traffic accidents. **Material and methods:** A retrospective study was performed for a period of one year, during 2018, within the Institute of Forensic Medicine -Targu Mureș. The study consists of data on a sample of 245 drivers between the age of 18 and 78 years old, who were involved in traffic accidents. **Results:** In our database, 92% of drivers were males and 8% females. Most of them, 29%, were aged between 18-28, followed by the age group of 38-48, with 23%. The results showed that 47% (n = 115), were tested positive for alcohol. As a result of a traffic accident, among males subjected to alcohol testing, 51% had a negative value and 49% a positive one. For the female group, only 30% consumed alcohol. **Conclusions:** The study confirms a high prevalence of alcohol consumption in participants involved in traffic accidents, driving under the influence (DUI) being often responsible for these events.

Keywords: drunk driving, road traffic, accidents, alcohol

HEMATOLOGICAL CHANGES IN PATIENTS WITH CELIAC DISEASE

Alexandra-Maria Hoza[1], Andra Mădălina Melinte[1], Roxana Sanpalean[1], Emanuel Serban Moldovan[1], Marian-Alexandru Marin, Melania Macarie[1]

[1]UMFST Tîrgu Mureş

Background: Celiac disease is an autoimmune, chronic and systemic disorder determined by ingestion of gluten

in genetical susceptible individuals. Even if it affects primarily the small bowel it can also cause extraintestinal manifestations. Hematological changes, especially anemia, are among the most common. **Objective:** We aimed to study the changes in hematological parameters in patients diagnosed with celiac disease. **Material and methods:** We performed a retrospective study including patients diagnosed with celiac disease between January 2017 and December 2019. The patients underwent esophagogastroduodenoscopy and hematological assessment. We calculated the prevalence of anemia, thrombocytosis/thrombocytopenia, hypoproteinemia, hypocalcemia and oher hematological parameters. We divided the patients in two different groups by histological findigs. We also found correlations between histological changes and the abnormal hematological findings. **Results:** Our study included 73 patients diagnosed with celiac disease, of whom 54 were females and 19 were males. The mean age was 44,19 +/- 13,86. Anemia was prezent in 30 patients with a prevalece of 41,09%. The baseline of hemoglobim in patients with anemia was 8,7 +/- 1,86 mg/dl. Thrombocytopenia was observed in 4 patients giving a prevalence of 5,47% and trombocytosis was seen in 9 patients with a prevalence of 12,32%. The prevalence of hypoproteinemia was 21,91%. We also found low serum levels of calcium in 13 patients and low levels of serum iron in 24 patients. Hematological changes were observed more frequent in patients with severe histological abnormalities. **Conclusions:** Hematological manifestations are frequent seen in celiac disease. The most common finding is anemia but other findings like thrombocytopenia, thrombocytosis, hypoproteinemia, hypocalcemia are not uncommon. Most frequently, the hematological abnormalities are associated with the degree of intestinal damage.

Keywords: celiac disease, gluten, hematology, anemia

MITRAL VALVE FLAIL IN A HEMODINAMICALLY STABLE PATIENT

Diana-Maria Chiriac[1], Roxana Rudzik, Dorina-Adriana Pavel[1], Andra Mădălina Melinte[1], Emanuel Serban Moldovan[1], Silvia Lupu[1]

[1]UMFST Tîrgu Mureş

Background: Mitral valve prolapse (MVP) is a benign condition characterized by myxomatous degeneration. MVP may be an isolated defect or can occur in connective tissue disorders such as Marfan syndrome, Ehlers-Danloss syndrome, or fibroelastic degeneration in elderly people. The leaflets of the mitral valve are thicker than normal and coaptation is impaired. This can result in hemodynamically significant mitral regurgitation, which causes volume and pressure overload of the left atrium. Complications associated with MVP include mitral valve fail, arrhythmia (atrial fibrillation), infectious endocarditis, and sudden cardiac death. The diagnosis is generally made by echocardiography. **Objective:** To report a case of acute mitral regurgitation due to mitral valve flail in a patient previously diagnosed with MVP. **Material and methods:** A 54 years old man presented to the Emergency Room with new-onset dyspnea after physical exertion and irregular high rate palpitations. The patient was previously diagnosed with mitral valve prolapse. The clinical examination revealed a blood pressure of 90/60 mmHg, irregular heartbeats with a heart rate of 90 bpm, a IV/VI systolic murmur in the mitral area, irradiated towards the base of the heart, and bilateral fine crackles at the base of the lungs. **Results:** The electrocardiogram showed atrial fibrillation with a ventricular rate of 90 bpm. The echocardiography showed a dilatated left ventricle with preserved ejection fraction (56%), a severely dilated left atrium, and severe mitral regurgitation due to flail of the posterior mitral leaflet. Both leaflets were myxomatous. **Conclusions:** The patient was stabilized by medical treatment and referred for surgery. Despite the sudden rupture of the chordae tendinae, the patient remained hemodynamically stable. This is justified by the increased compliance of the left atrium, submitted to chronic volume overload caused by pre-existent mitral valve regurgitation.

Keywords: mitral valve prolapse, left atrium, echocardiography

---

THE DIAGNOSTIC VALUE OF NEUTROPHILS TO LYMPHOCYTES RATIO, PLATELETS TO LYMPHOCYTES RATIO AND LYMPHOCYTES TO MONOCYTES RATIO IN ACUTE APPENDICITIS

Florentina-Cristina Scarlat[1], Bogdan Andrei Suciu[1], Toader Septimiu Voidazan[1]

[1]UMFST Tîrgu Mureş

Background: Many biomarkers such as white blood cells and platelets have been used as adjuncts in the diagnosis of various inflammatory diseases such as acute appendicitis. These laboratory test results are readily available and routinely performed in patients with suspected appendicitis during their admission. Although their

predictive value has been widely studied, their role still remains controversial. **Objective:** Our study aimed to evaluate the diagnostic value of preoperative inflammatory markers of neutrophils to lymphocytes ratio (NLR), platelet to lymphocytes ratio (PLR) and lymphocytes to monocytes ratio (LMR) in patients with signs and symptoms of acute appendicitis and determine the accuracy of the above markers in perforated appendicitis and periappendicitis. **Material and methods:** In this retrospective study, 439 patients diagnosed with acute appendicitis were included. According to the histopathological report, 208 had phlegmonous appendicitis, 156 gangrenous appendicitis, 71 superficial appendicitis and 4 presented the normal histological structure of the appendix. The levels of peripheral blood cells: lymphocytes, platelets, neutrophils, and monocytes were collected prior to the surgery. Their ratios: neutrophils to lymphocytes (NLR), platelet to lymphocytes (PLR) and lymphocytes to monocytes (LMR) were analysed in corelation with the diagnosis of the acute appendicitis and the presence of perforation (176 patients) and periappendicitis (335 patients). **Results:** The sensitivity and specificity, area under the receiver operating characteristic (ROC) curve, and cutoff point of NLR, PLR, and LMR for presence of periappendicitis were 81.4%, 62.5%, 0.730, 4.2995 (NLR), 84.2%, 33.3%, 0.6, 103 (PLR), 87.9%, 42.9%, 0.672, 3.1797 (LMR). Whereas the sensitivity and specificity, area under the ROC curve, and cutoff point of NLR, PLR and LMR for presence of perforation were 63.7%, 64.3%, 0.682, 7.866 (NLR), 57.8%, 68.5%, 0.643, 178.4 (PLR), 57.3%, 67.5%, 0.641, 1.6546 (LMR). **Conclusions:** NLR, PLR and LMR show a high accuracy for the diagnosis of acute appendicitis and distinguishing the presence of periappendicitis and perforation.

Keywords: appendicitis, lymphocytes, neutrophils, platelets

EMERGING SARS-COV-2 VARIANTS AND THEIR IMPACT ON COVID-19 VACCINES

Mihail-Silviu Tudosie[1], Andreea-Marilena Păuna, [2]

[1]UMF Carol Davila Bucureşti

[2]

Background: Since the beginning of COVID-19 pandemic, multiple viral variants of SARS-CoV-2 have been detected, most of which appear to have little epidemiological significance. But, a number of 'variants of concern' (VOC) appear to influence host immune response and virus transmissibility. **Objective:** The aim of the study is to analyze the characteristics of the main variants identified during the pandemic, emphasizing the particularities found at European and national level. **Material and methods:** In this review, we have summarized current knowledge of new SARS-CoV-2 variants identified in the United Kingdom (B.1.1.7), South Africa (B.1.351) and Brazil (P.1). Also, we have studied the implications of SARS-CoV-2 VOC on vaccine effectiveness. **Results:** Emerging variants present a new challenge. Some of variants of concern affect the severity or clinical course of disease, viral transmission, or the level of natural or vaccine-induced immune responses. The B.1.1.7 variant appears to be more transmissible than the previously predominant circulating strains and may cause more severe infection. The impact of vaccine effectiveness varies from none to moderate, depending on the variant and the type of vaccine. In the EU/EEA with the increased circulation of more transmissible variants, the epidemiological situation is still of serious concern. In Romania, the number of cases caused by VOC is increasing. Furthermore, the E484k mutation has been identified in patients from different geographical areas, with no known location of exposure **Conclusions:** In light of the potential risk posed by SARS-CoV-2 variants, it is essential that nationals and global systems to maintain collaborative structures and relationships in order to detect, characterize and respond to these variants to minimize their public health impact. In the context of the current pandemic, the concept of one health returns to attention, showing close linkages between the health of humans, animals and ecosystems.

Keywords: variant of concern, transmissibility, efficacy, prevention

---

THE IMPORTANCE OF MILITARY SIMULATIONS AND THEIR IMPACT ON THE READINESS FOR DUTY AND SELF CONFIDENCE OF MILITARY MEDICINE STUDENTS

Maria-Teodora Constantin[1], Maria-Larisa Cornea-Cosma, Lazăr Nicolae-Alexandru, Virginia-Andreea Albici[1], Andra Gabriela Cristea[1], Bogdan-Ion Tambrea[2]

[1]UMFST Tîrgu Mureş

[2]Another University

Background: All military medicine students undergo throughout their student period a theoretical military training

and some regular front instruction but they don't have an established exercise at the end of their studies where their joint abilities, medical and military, be tested. They don't really get to taste the stress that comes from the casualties that must be taken care of from the battlefield combined with the pressure to do everything as good and as fast as possible. In 2019, the Vigurous Warrior exercise took place and we observed some improvement in our students and in that order, those things led to this actual study. **Objective:** This study rose from our interest of demonstrating the efficiency of practical exercise for the students in our Institute. We wanted to see if the experience gave them a new perspective and purpose in carrier. **Material and methods:** Data from the participants to the 2019 Vigurous Warrior exercise (N = 40) were collected. Based on the received answers, descriptive statistics, , correlation analyses and trend charts were performed. **Results:** Data were available from 30 out of 40 [75%] participants from the Military Medicine Institute . Results revealed that: (1)before the exercise, students didn't feel like there was much applicability of the lessons learned at theoretical military training ; (2) after participating at this combined simulation 90% of the students reported an increasing in the comradeship spirit and a greater opening towards treating patients in operational theatres. (3)100% of them were interested of participating to other future conjoined military medical simulations. **Conclusions:** The study revealed that applying theory in those practical simulations provides great improvement in students readiness for duty and makes them be more engaged in their military and medical training. Also, the level of group operability increased considerably.

Keywords: Vigurous Warrior, military training, medical simulations

---

THE IMPACT OF PARTICIPATING IN THE VIGOROUS WARRIOR EXERCISE IN ORDER TO CHOOSE THE RESIDENCY SPECIALIZATION

Andra Gabriela Cristea[1], Mara Epure[1], Roxana Chitic[1], Bogdan-Marcel Suciaghi[1], Maria-Teodora Constantin[1], Bogdan Ion Tambrea[2]

[1]UMFST Tîrgu Mureş
[2]Institutul Medico-militar

Background: The study aims to highlight the emotional impact that the exercise Wigorous Warrior had on the medical-military students. Choosing the specialization for the residency is a crucial moment in a future doctor's career, therefore the exercise Vigurous Warrior had an important role, giving the student the opportunity to get in touch with different situations and medical cases, that contured the image of what it means to be a military doctor. We analyzed the perception of students of that exercise. **Objective:** The study wants to show if this experience makes students to think about their future career or change their vision of it. We wish to show how many students would like to become an emergency doctor and how many would want in The Air Force. **Material and methods:** For our investigation we used conversations, explanations, questions and answers with the participating students at the exercise **Results:** Most of participants were from 1st years, with a 58,3% percentage, almost equal boys and girls. Students believe that they improved their knowledge both practically and theoretically, so they will want to participate at the next edition of Vigorous Warrior **Conclusions:** That exercise had a great impact to the most students and they would like to attend at the same medical exercise. Following this experience, around 50% of students will not choose emergency medicine and approximately 50% will want to work in The Air Force.

Keywords: Military medicine, Residency, Vigorous Warrior, Military exercise

---

THE IMPACT OF STRESS ON THE PERFORMANCE OF THE MILITARY STUDENT

Mara Epure[1], Andra Gabriela Cristea[1], Roxana Chitic[1], Andreea Bumbaru[1], Stefan Stelea, Ramona Carașca[1]

[1]UMFST Tîrgu Mureş

Background: Stress is a complex psychosocial phenomenon that occurs as a result of the confrontation with different situations, perceived by the individual as difficult, painful or highly important for him. Nowadays, stress occupies a veritable podium among current topics, due to its effects on both the mental and human health and on the quality of their social life. **Objective:** This study aims to highlight the different perception of each human being and how they handle a stressful situation. We analyzed how the medical-military students adapt and overcome those moments in order to ensure a good academical and military oriented success. **Material and methods:** In order to outline this study we used for our investigation the following materials: conversations, explanations and questionnaires at which the military students had to answer based on their personal experience. **Results:** Most of the participants were exposed often at stress recently and each reacted in a different way. The majority believe

stress is useful and necessary for their personal development and also that exposure to stress helps them accomplish their tasks faster. **Conclusions:** As we can observe from the study, the military students who took part to this research tend to appreciate stress as a constructive feeling and try to get the best out of it. Following this investigation, the majority of students do not have a problem overcoming stress, which is an important attribute for a military student.

Keywords: Stress, Medical-military, Students, Psychosocial

MILITARY

A FLAGRANT VIOLATION OF INTERNATIONAL AGREEMENTS: SYRIA- GOVERNMENT VERSUS REBELS, A BELLIGERENCE THAT HAS ECHOES IN THE CIVILIAN LIFE

Bogdan-Marcel Suciaghi[1], Andra Gabriela Cristea[1], Mihai Acon[1], Alexandra-Mihaela Birtea[1], Alexandra-Delia Pacurar[1], Ramona-Rodica Caraşca[2]

[1]UMFST Tîrgu Mureş
[2]Institutul Medico-Militar Bucureşti, Secţia de Pregătire Medico-Militară Târgu-Mureş

Background: Throughout the past decade, Syria had a tumultuous socio-political history, primarily caused by the rebellion against the highly authoritarian presidential regime lead by Bashar-al-Assad. There have been numerous attempts to enforce a pseudo-called "peace"within the borders made by the leading authorities, using mass destruction weapons such as chemical weapons (mainly war-gasses). Nevertheless, the anti-governmental forces responded in equal terms. An increased number of civilian casualties were reported, both sides fragrantly ignoring the 1925 Geneva Convention regarding the usage of chemical and biological warfare methods. **Objective:** The aim of this paperwork is to outline the damaging mechanism of the substances used against the civilians and to provide data-analysis regarding casualty rates in the 2012-2019 period of the Syrian civil war. **Material and methods:** UN Arms Control Association and International Committee of The Red Cross reports, military and civilian toxicology reports, studies about the substances used. **Results:** Between 2012-2019 there have been reported 117 chemical weapon attacks, totalising approximately 3131 casualties with a mortality rate of 34%(1072). The chemical agent was released via 140mm missiles and barrel bombs in most of the cases. The ethiologic agent was undiscovered in 47% of cases. Although Chlorine gas is a compound commonly used as a disinfecting and household agent, UN reports proved it was implied in 27% of the attacks. The main target of the chlorine gas is the alveolo-capillary membrane, where it forms Hydrochloric and Hypochlorous acid, leading to irritation or Acute Respiratory Distress Syndrome(ARDS). Also, in 10% of the cases an organophosphorous compound was found, the Sarin gas. This odourless gas acts as an irreversible acetylcholinesterase inhibitor, patients presenting muscarinic, nicotinic and Central nervous system(CNS) symptoms. **Conclusions:** Although the usage of chemical weapons is strictly prohibited by international regulations, Syria has secretly used extremely dangerous weapons during the civil war, affecting not only the combatants but mostly impairing civilians.

Keywords: Sarin gas,, Chlorine gas,, Syrian civil war,, Geneva convention,

---

DISCIPLINE-PERSONALITY INTERRELATION REGARDING MILITARY STUDENTS

Maria-Teodora Constantin[1], Maria-Larisa Cornea-Cosma, Vlad Iustinian Oniga[1], Alexandra-Mihaela Birtea[1], Țuțueanu Bianca-Teofana, Bogdan-Ion Tambrea[2]

[1]UMFST Tîrgu Mureş
[2]Another University

Background: As far as we can remember, the army had an organized way of contouring and shaping the people that enrolled in their field. Discipline is seen as a base characteristic of all those who get to accomplish their life goals and as it seen everywhere, the army promotes and teaches discipline among its members. **Objective:** Having those in mind we wanted to demonstrate that besides the improvement of the soldiers physical abilities the army transforms the weak into mentally though men. Due to the fact that the officers of tomorrow can be found in todays military academies we wanted to underline their growth from order followers to leaders. **Material and methods:** We collected data from students of multiple military higher education units. Based on their answers we performed descriptive statistics, correlated the results and analyzed the central tendency of the masses. **Results:** The analyzed data was gathered from 112 people. Our results showed that: (1)the time spent in army helped almost 90% of them have a better time management; (2)the rigorous regime made them more responsible and improved their leadership abilities; (3) the great majority believes that the strictness of army life did not affect their capacity to adapt their thinking according to various situations. **Conclusions:** The current study demonstrated our hypothesis that young minds become more structured as they undergo a life centered around the idea of discipline. Opposite to the misbelief that army rigidity can cause frustration and determine rebellion, 90 percent of our participants infirmed this.

Keywords: discipline, army life, leadership, personality

THE IMPACT OF STRESS ON A SOLDIER'S QUALITY OF LIFE

Virginia-Andreea Albici[1], Alexandra-Mihaela Birtea[1], Maria-Teodora Constantin[1], Mihai Acon[1], Ramona-Rodica Carașca[2]

[1]UMFST Tîrgu Mureş
[2]SPMM Tg Mures, IMM Bucuresti

Background: The military system can be defined as " a peacetime war intervention system". From this phrase is deduced with wear and tear the emotional impact and the stress factor that affects the military from the need to always be "on duty" for the country. This study is based on the changes that occur in the life of a soldier who shows the symptoms found in post-traumatic stress disorder (PTSD) **Objective:** This paper aims to highlight the changes of soldiers who went on missions, how their emotional and mental state was affected when they were away from their family and were subjected to stress. **Material and methods:** The evaluation consists in analyzing the presence of stress and in interviewing the military who took part in external missions, as well as exploring the impact on their own families. **Results:** Each military has its own way of managing the symptoms, which manifests itself in a similar way. Following the results of the questionnaire, they claim that they have communication problems, reliving certain episodes and in some proportions insomnia or nightmares. Among the respondents to the questionnaire, there is a small percentage of soldiers who were physically injured during missions. They showed more severe symptoms. **Conclusions:** The effect of trauma is obvious. The person in question isolates himself from people and certain situations, has nightmares repeatedly and faces an inability to make choices, whether it is personal or professional life. Against this background appears divorce, the concept of abuse, whether we are talking about alcohol, tobacco or other concerns, which has a major impact on quality of life.

Keywords: impact, trauma, soldier, life

THE IMPACT OF ONLINE EDUCATION TO THE MILITARY STUDENT'S LIFE

Alexandra-Mihaela Birtea[1], Virginia-Andreea Albici[1], Bogdan-Marcel Suciaghi[1], Maria-Teodora Constantin[1], Maria-Dorina Pașca[1]

[1]UMFST Tîrgu Mureş

Background: The military student experienced the exclusive online organization of courses, laboratories, practical work, training and specific military activities due to the evolution of the pandemic. This study is based on the changes that the epidemiological situation has brought to the life of the military student. **Objective:** The most important aspect of this paper is the impact that online education has had on the military student, drawing a parallel between the experience of the military medical student and the experience of his colleague from a military academy. **Material and methods:** Psychological methods were used for our investigation: conversation, explanation, and questionnaire. **Results:** The results of this study are gratifying. Most of the respondents to the questionnaire consider that they have adapted very well to the academic requirements of the online environment, they have learned to manage their study time and free time more efficiently, staying motivated to cope well with the institutional challenges. At the same time, military students remain optimistic and say that although they have lost important hours of specific military training, they will be able to recover easily when the pandemic situation allows. The respondents of the questionnaire continued, in a very large number, to carry out sports activities that would strengthen their motivation. The results of the students after the academic examinations were in line with expectations. **Conclusions:** This study shows that it is necessary a transition to onsite education for military students, so that they respond positively to all academic requirements and to be able to carry out specific military activities. At the same time, the transition to onsite education is beneficial for strengthening the camaraderie relations specific to the military regime, the motivation and effectiveness of the way of working.

Keywords: military, student, online, impact

THE IMPORTANCE OF INTERCULTURAL COMMUNICATION IN ARMY

Mihai-Danut Timofte[1], Ureche Ionut, Laura Cizer[1]

[1]"Mircea cel Batran" Naval Academy of Constanta

Background: Due to the multinational exercises that armies perform, the ability to communicate with people of other nationalities has become very important. **Objective:** This paper includes my military experience during my studies at "Dimitrie Cantemir" National Military College of Breaza and at "Mircea cel Batran" Naval Academy of Constanta when I found out the real definition of army, and also my language experience during a project I applied for in 2019 called "DiscoverEU". **Material and methods:** Firstly, a current international situation will be presented and the triple C lesson will be pointed out. Secondly, the importance of intercultural communication in army will be given; more precisely what this competence is and why this is so important in army nowadays **Results:** The present international situation in the military has been characterized by the participation of armed forces in worldwide military activities. An important cause of strained relations among the military persons are the differences of cultural background and the spoken languages and these things has diminished mission effectiveness. **Conclusions:** Finally, a solid conclusion will be drawn about the importance of intercultural communication in army.

Keywords: intercultural communication, army, students, importance of communication

THE IMPACT OF CHEMICAL WARFARE AGENTS FROM THE WORLD WAR II ON THE BALTIC SEA ENVIRONMENT

Radu Leonte[1], Valeriu Roșu, Manuela Rossemary Apetroaei[2]

[1]Academia Navala Mircea Cel Batran

[2]Academia Navala "Mircea cel Batran"

Background: Chemical weapons are a way to defeat the enemy by using gadgets, weapons, and military equipment that uses chemicals in order to lose personnel, equipment, or making the withdrawal. After the defeat of Germany, great quantities of chemical agents used in the war were captured by the Allied forces. **Objective:** Our study aims to highlight the danger represented by these underwater deposits of chemical warfare agents on human health, and the marine environment, due to the corrosion phenomenon of steel mantels. **Material and methods:** To understand better the mechanism of corrosion, we will present the chemical reaction between the steel case of the bomb and sea water. **Results:** As a result of the chemical reaction, the rate of cancer cases began to drastically grow around the Baltic countries, Sweden being first place in the world at cancer cases with 3 at 100 thousand inhabitants. **Conclusions:** In conclusion, we must be cautious when we consume food brought from the endangered zone. We must be aware about what pollution and its effects really mean. The world needs to know that in case of a calamity of this caliber can only be resolved if we act as one

Keywords: Chemical weapons, Pollution, Second World War

FUNDAMENTAL SCIENCES - PHARMACY

STUDY ON THE CHIRAL BEHAVIOR OF B-BLOCKERS USING AMYLOSE-2 AS THE STATIONARY PHASE

Mihai Constantin Comăniță[1], Anca Gabriela Cârje[1]

[1]UMFST Tîrgu Mureş

Background: B-blockers are a therapeutic class commonly used in high blood pressure, with at least one chiral center in their molecule, having pharmacologically significant differences between enantiomeric forms, which makes these antihypertensives one of the most intensely studied classes in terms of chiral behavior. **Objective:** Since the majority of existing methods in the literature using polysaccharides as chiral selectors are normal phase chromatographic conditions (NP), we proposed to investigate the capacity of amylose to separate five β-blockers compounds (bisoprolol, carvedilol, metoprolol, pindolol, and labetalol) using reverse phase or polar organic conditions, in order to develop an analytical method for enantiomeric quality control of raw materials and pharmaceutical dosage forms. **Material and methods:** All samples were solubilized in methanol and were performed using an Agilent-1100 Series HPLC system with UV detection (240 nm), using a Lux Amylose-2 chiral column (150×4.6 mm, particle size 5 µm). **Results:** The effect of experimental variables like the nature of organic modifier or additives in mobile phases, flow rate, temperature were investigated. Among the basic additives used diethylamine and ammonia proved to be the most effective in enatioseparation of the investigated compounds, while triethylamine did not allow their chiral discrimination. Higher resolutions were obtained using 20 mM ammonium-carbonate buffer (pH = 8.5) compared to 20 mM borate buffer (pH = 9.3). In the case of bisoprolol, the addition of 0.1% diethylamine or 0.1% ammonia in the mobile phase (95% CH3OH, 5% H2O) improved both the resolution and the shape of the peaks. **Conclusions:** RP elution mode using Amylose proved to be an alternative for normal phase in chiral discrimination of the studied compounds like bisoprolol, metoprolol, and labetalol and less for carvedilol and pindolol. The best enantioresolution was obtained in the case of bisoprolol using 0.1% ammonia as an additive in 100% methanol ($R > 6$, $\alpha > 3$).

Keywords: Amylose,, Reverse phase,, Beta blockers,, Chiral separation

PHARMACEUTICAL SCIENCES - PHARMACY

DEVELOPMENT OF AN HPLC METHOD SUITABLE FOR CHLOROTHALONIL TRACE MEASUREMENT IN TOMATO SAMPLES AND DECOMPOSITION KINETIC STUDIES

Edina-Krisztina Șuteu[1], Mircea Croitoru[1]

[1]UMFST Tîrgu Mureş

Background: Chlorothalonil is a fungicide widely used in order to protect crops agains fungal infections. It is classified by IARC as a Class II b carcinogenic agent. **Objective:** Development of a high specificity, precise and accurate method for the detection of chlorothalonil residue in vegetables (especially tomatoes) at levels that are relevant to the established ADI (Accepted Daily Intake) for this compound. The method should be suitable for further decomposition kinetic studies, in order to establish the best possible way of use for this compound (efficient for plant protection and safe for the consumer). **Material and methods:** Method performance check was made using tomatoes as biological matrix. Specificity, precision and accuracy was assessed using the "spiked sample technique". As mobile phase, acetonitrile and phosphate buffer were used in gradient mode. Stationary phase consisted in a C-18 HPLC column with a particle size of 3 um. Detection was made using a DAD detector, monitoring range was 200-400 nm (for peak purity measurement) and best chromatogram was extracted at 232 nm (for quantitative assessment). Injection volume was 100 ul, using "loop" mode. Calibration curves were obtained for a range of concentrations covering at least 0.25 - 10xtimes the maximum admitted concentration value of 0.75 mg/kg of tomatoes. **Results:** High specificity was recorded, with no tomatoes specific peak at the retention time of chlorothalonil. **Conclusions:** The developed method is suitable for detection of trace amounts of chlorothalonil from tomatoes and for decomposition kinetic measurements, that will allow the development of safer use patterns for this substance.

Keywords: HPLC, chlorothalonil, ADI

POSTER - SURGICAL

ACUTE ISCHEMIA OF THE LOWER LIMB AFTER COVID 19 INFECTION

Andrei Manea[1], Ioan Teodor Bud, Eliza Russu, Mihaela Măican[1], Paul Frigură[1], Adrian Mureșan[1], Adriana Mocian[2]

[1]UMFST Tîrgu Mureş

[2]SCJU Mureș

Background: Acute ischemia of a limb is defined as a sudden decrease of blood flow and perfusion of the limb. It can be caused by a thrombus, an embolus or by trauma. Being a life threatening condition, rapid action must be taken in order to salvage the limb, irreversible tissue damage appearing after 6 hours. **Objective:** The objective of this case is to underline the importance of rapid intervention in the case of a acute ischemia of a limb. **Material and methods:** The patient, a 80 old years woman, was admitted in the emergency department in 10th of April, accusing intense pain in the right lower limb. The teguments of the limb were pale and cold. She is known with atrial fibrillation, hypertension, ischemic cardiomyopathy, cardiac insufficiency, tricuspid insufficiency, mitral insufficiency for which she takes chronic treatment, also having a cardiac stimulator. Another particularity of the case is a recent COVID-19 infection for which she treated herself at home. An aortic and lower limb angio CT was performed which described total obstruction of the common iliac artery. The patient was referred to the vascular surgery department for further care. Femoral popliteal thrombectomy with Fogarty catheter was performed under local anesthesia. An superficial femoral artery angioplasty enlargement was also performed on the left leg with bovine pericardium patch, due to mixed atheromatous plaques. **Results:** The postoperative recovery was favorable, the right lower limb had warm, normal colored teguments, peripheral pulses being present bilaterally. The patient was discharged on 15th of April **Conclusions:** Acute limb ischemia is a rapid progressing condition that requires quick intervention, preferably in under 6 hours for the best results and limb salvage.

Keywords: Acute ischemia, Thrombectomy, COVID-19

AN UNUSUAL CASE OF ACUTE ABDOMEN – CELIAC TRUNK THROMBOSIS

Sabina Lungu[1], Georgiana Petre-Mationi, Attila Janos Venczi, Sebastian Buja, Reka Kaller, Daniel Popa[1]

[1]UMFST Tîrgu Mureş

Background: Acute ischemia in the splanchnic area has a low occurrence (2%) in gastrointestinal emergencies, but is still associated with high mortality. Acute celiac trunk (CT) occlusion is uncommonly seen in these vascular diseases, the condition causing damage to the liver, stomach, duodenum and spleen. **Objective:** The aim of this presentation is to review the therapeutic possibilities we have at our disposal. **Material and methods:** We report the case of an 83-year-old patient, with multiple comorbidities, admitted in Surgery Clinic 1 of the Emergency Clinical County Hospital of Târgu Mureș. On admission he complains of intense abdominal pain, abdominal guarding, nausea, vomiting and an important altered mental status is observed. Laboratory investigations displayed leukocytosis, abnormal liver enzyme levels, anemia and hyperglycemia. A contrast-enhanced abdominal CT revealed complete occlusion of the celiac trunk and its branches with the presence of gas in the left hepatic lobe. Emergency midline laparotomy was performed. The patient underwent a thromboendarterectomy of the left hepatic, splenic and gastric arteries, followed by a retrograde aorto-celiac bypass with an autologous saphenous graft. **Results:** The immediate post-interventional evolution of the patient was favorable, showing the efficiency of the graft, but unfortunately he died shortly after, in the intensive care unit, due to cardiac issues. **Conclusions:** Acute thrombosis of the celiac trunk is a condition with an increased mortality rate. The diagnosis must be performed before the development of end-organ damage, with the surgical management being the main treatment.

Keywords: celiac trunk,, splanchnic ischemia,, aorto-celiac bypass,, thrombosis

---

MANAGEMENT OF GIANT AND SYMPTOMATIC LIVER HEMANGIOMA

Emilia-Paula Lucaci[1], Cédric Kwizera, Sandu Aprodu, Mihai Bălan, Anca Derșidan, Daniel Popa[1]

[1]UMFST Tîrgu Mureş

Background: Liver hemangioma (LH) is the most frequent benign tumor which relatively stays undiagnosed, but can be detected at routine imagistic check-up or when it becomes bigger and symptomatic. Bigger hemangiomas

can lead to serious complications. The most common symptoms are bloating, epigastric or right hipocondrum discomfort, jaundice. Oftentimes, a watchful wait and a periodic clinical and imagistic follow-up are enough, but some LHs require medical, interventional or even surgical attention. **Objective:** The aim of this case presentation is to show which is the adequate approach we opted for a gigantic left LH in a male patient. **Material and methods:** We present a case of a 53 year-old male patient who was admitted in our clinic, presenting uncontrollable right epigastric and hipocondrum pain for the last 4-5 months. A ultrasound and a CT scan were performed. A 10/10cm left lobe and a 3/3cm segment V hemangiomas were discovered. **Results:** After careful assessement of the case and with the patient consent, surgery was opted for: a right subcostal laparotomy, followed by the exploration of the abdominal cavity where two LHs were observed, as described in the imagistic investigations. Enucleation of the left LH and heat sclerosing of the segment V hemangioma were performed. Haemostasis, peritoneal lavaj and subhepatic drainage followed by wound closure and dressing were done. Uneventful postoperative evolution, food intake on the 3rd day and the patient was discharged on the 7th postoperative day. **Conclusions:** Although, the pathophysiology of LH is not clearly known; as clinicians we have to bare in mind the trickiness of this pathology. Some LHs require no attention, whereas others call upon specific care. We ought to choose the right approach. In our case, surgery was the best option based on mainly two things: the symptoms of the patient and the size of the left LH.

Keywords: giant liver hemangioma,, hipocondrum pain,, segment V,, enucleation

---

RIGHT MEDIOVENTRICULAR STENOSIS IN ADULTS – CASE REPORT

Sofia Leonardi[1], Patricia Hulea[1], Marius Harpa[1]

[1]UMFST Tîrgu Mureş

Background: It is well known that adult congenital heart diseases incidence is about 5% per year, the most common defects being aortic stenosis, subaortic stenosis, coarctation of the aorta. Patients over age of 20 suffer from CHD and are not properly diagnosed, first due to the fact that many pediatric cardiologist do not evaluate patients over 18 years of age and second because adult cardiologist are less prepared in the evaluation of congenital diseases. **Objective:** The aim of this paper is to present the case of a 46 years old female patient with severe congenital right medioventricular stenosis and the impact and outcomes of much delayed cardiovascular procedures. **Material and methods:** The patient's physical examination revealed dyspnea and fatigability which occurs at small efforts. Paraclinic investigations laid out a sinus bradycardia, with a ventricular rate of 49 bpm and no modifications of the terminal phase. The preoperative ultrasound pointed out a significant right medioventricular stenosis (max. gradient 77 mmHg) associated with pulmonary regurgitation grade 1. The patient presents tricuspid regurgitation grade I/II, mitral regurgitation I/II with hypertrophic interventricular septum. The ejection fraction is 50%. The intraoperative TEE confirms the aspects pointed out in the preoperative ultrasound. The angio-computed tomography shows no signs of significant coronary stenosis. In accordance with the diagnosis, right medioventricular resection was performed in association with right ventricular outflow tract reconstruction using a heterologous pericardial patch. **Results:** The postoperative examinations laid out a 6 mmHg medioventricular gradient. The VD-AD gradient of 42 mmHg and no pathological pericardial modifications. **Conclusions:** After the surgery the patient did not present any complications therefore she improved the quality of life. It is also important to mention that more frequent pediatric cardiology examinations should be performed with focus on the pathologies which can become symptomatic in adult age.

Keywords: #CHD, #SCREENING, #STENOSIS

MYXOFIBROSARCOMA OF THE GLUTEAL REGION WITH SCIATIC NERVE PAIN – A CASE REPORT

Patricia Hulea[1], Calin Dragos Molnar[1], Sofia Leonardi[1], Cătălin-Dumitru Cosma[1], Călin Molnar[1]

[1]UMFST Tîrgu Mureş

Background: It is well known that due to highly heterogeneous and non-specific clinical features, myxofibrosarcoma frequently faces misdiagnosis or delay of diagnosing. Being a soft tissue tumor, more often located at the level of arms or legs, it affects people over the age of 50, occurring slightly more often in men than women. **Objective:** Our paper aims to present the case of a 61 years old male patient with a history of malignant tumor of the urinary tract, presenting signs of a palpable tumor mass of the gluteal region with local locomotion

pain. **Material and methods:** Based on the clinical examination, the patient presented a tumoral mass located on the left buttock, of hard consistency, slightly immobile with the underlying tissues. Additionally, a computer tomography scan highlighted the presence of a tumoral mass, advocating for a lipoma. Following the diagnose, the left gluteal tumor invading the gluteal muscles with the probability of left sciatic nerve, and the left iliac wing involvement, the patient underwent a surgical procedure with total tumor excision. **Results:** The histopathological examination pointed out the presence of a myxofibrosarcoma, grade III, measuring 175x130x80 mm with negative circumferential margins. The postoperative status of the patient faced no complications. **Conclusions:** Taking into consideration the surgical difficulties encountered in the case of buttock located sarcomas, due to the proximity of the sciatic nerve and the possibility of tumor extension to the perineum and pelvis, a more attentive examination and follow-up in patients with a history of malignant tumors should be required.

Keywords: myxofibrosarcoma, tumor resection screening, malignant tumor history

---

LAPAROSCOPIC HELLER'S MYOTOMY IN ACHALASIA CARDIA

Iulia-Maria Lupu[1], Sabina- Irina Grecu[1], Ciprian-Gelu Grigoroaea[1], Emilia-Maria Gaitan, Sergiu Ciurean, Gabriel Serac[1]

[1]UMFST Tîrgu Mureş

Background: Achalasia cardia, a motility disorder, represents a usually mild dysfunction of the esophageal sphincter. The substantial dilatation of the esophagus causes aperistaltism which may lead to severe malnutrition and alteration of the gastrointestinal tract's functionality. **Objective:** This presentation's main intention is to offer a more in-depth view regarding the surgical treatment for achalasia. **Material and methods:** Our patient is a 55 years old female who has been hospitalized for achalasia cardia as the principal diagnosis which led to some of the secondary diagnoses including unspecified chronic gastritis and aderential syndrome. Primary ovarian insufficiency and multinodular goiter represent the endocrinologic disorder the patient presents. After conducting the necessary preoperatory investigations including abdominal CT and thoracic CT it was revealed that a laparoscopic intervention would be of utmost practicability. The procedure requires pre-insufflation with the Veress needle and introducing the optical trocar in the supraumbilical area followed by another 4 trocars. After elevating the left lobe of the liver and dissecting the gastrohepatic ligament the surgeons are able to divide the longitudinal muscle layer of the esophagus whilst preserving the vagus nerves. Furthermore, methylene blue is administered through the nasogastric tube as a way of verifying whether a mucosal lesion has been made during the maneuver. Finally, an anterior fundoplication (type Dor) is performed to avoid gastric reflux. **Results:** 3 days after the operation the patient presented significant aerocoly at the splenic flexure and descending colon, postoperative pneumoperitoneum and a dilated, tortuous esophagus. Despite having been a minimal passing of the contrast substance through the lower esophageal sphincter, there was a considerable improvement in regard to dysphagia. **Conclusions:** Achalasia cardia in most cases can be easily remedied by a laparoscopic intervention using Haller's myotomy followed by postoperative care with favorable outcomes in a high percentage of patients.

Keywords: achalasia, myotomy, fundoplication, laparoscopy

INDICATIONS FOR LAPAROSCOPIC SPLENECTOMY IN SPLEEN PATHOLOGY IN THE 2ND DEPARTMENT OF SURGERY

Paul-Cristian Borz[1], Cristian Borz[1]

[1]UMFST Tîrgu Mureş

Background: A very important procedure for spleen pathology is laparoscopic splenectomy. The main indication for laparoscopic splenectomy are the hematological diseases. In contrast, in spleen trauma, open surgery is more used. Laparoscopic splenectomy is more difficult than the rest of the laparoscopic interventions due to the localization of the spleen and sometimes due to the large size of the spleen. However, this procedure brings superior benefits over the open surgery. **Objective:** The objective of the study is to define the indications for the laparoscopic splenectomy, the evolution over the years and to show the possibility to use this intervention in a wider spectrum of spleen pathologies. **Material and methods:** We performed a retrospective study between 2006 and 2020. During these 15 years, 447 splenectomies were performed, of which 381 interventions were classic approach (85%), and the rest were performed by laparoscopic approach (15%). Splenectomy has been used most often in hematological diseases, from which 122 were open surgery (66%) and 62 were laparoscopic (34%). On the other hand, for spleen trauma all the interventions were open surgery. **Results:** Due to the evolution of the

laparoscopic surgery and laparoscopic training courses, there has been an upward trend for laparoscopic splenectomy since 2013 and continuing until 2018. From 2018 there was a slight decrease in laparoscopic splenectomy, due to the new innovations in terms of medical treatments for the hematological pathology such as glucocorticoid therapy, Rituximab or Rho(D) immune globulin treatment for idiopathic thrombocytopenic purpura. It was observed that laparoscopic interventions were used especially in patients with moderate spleen size such as in spherocytosis, hemolytic anemia and idiopathic thrombocytopenic purpura. **Conclusions:** Analysis of our study suggested that laparoscopic splenectomy is used especially in hematological pathology, however new studies have shown the benefits of laparoscopic splenectomy in case of malign pathology and patients with spleen trauma that are hemodynamically stable.

Keywords: laparoscopic, spleen, hematological diseases

RARE COMMINUTED EPI-METAPHYSEAL BILATERAL FRACTURE INCLUDING NEUROSURGICAL IMPAIRMENTS AFTER FALL-LEVEL POLYTHRAUMATISM.

Ferchi Cornelia[1], Thanas Shituni[1], Paul Frigură[1], Cristina Forgaci[1], Ruxandra Filip[1], Adrian Ivanescu[1], Denis Pasc[1]

[1]UMFST Tîrgu Mureş

Background: A comminuted fracture is one in which the bone is broken into several small fragments. Usually a crushing force is responsabile for that process, which also affects the surrounding tissue. These various patterns of injury can be understood if one is aware of the direct and indirect forces that act on the ankle, the ligamentous anatomy of the ankle, and the effects of trauma on the epiphysis. **Objective:** Our goal is to highlight the importance of interdisciplinary resolution in cases of polytrauma. **Material and methods:** We present the case of the 46-year-old patient, who was brought to the Emergency departament, following a fall trauma from another level. After stabilizing the patient, cleaning the wound, suturing and immobilization in a cast, the patient was referred to Neurosurgery Department to resolve neurological disorders. The patient was then hospitalized in the Orthopedics-Traumatology Clinic 1 for specialized treatment. A postero-lateral incision was made in both lower crural regions, and an open reduction of fibula fracture and osteosynthesis with plate and screws under RTG-TV control was performed. Additionally the patient required an open reduction of posterior tibial pillar fracture and osteosynthesis with plate and screws, suture in anatomical planes, sterile dressing. Postoperative immobilization in bilateral gambiero-podal plaster splint. Reintervention was needed for the harvest of a tricortical bone graft from the left iliac crest and its relocation in the area of the bone defect at the level of the right tibial epi-metaphysis. Left tibia required fracture open reduction and internal fixation with plate and screws. **Results:** Favorable postoperative evolution, good general condition, decreased pain and surgical wounds without inflammatory signs, without pathological secretions, healing per primam, actively mobilized at the level of the bed. **Conclusions:** Considering the evolution of the patient we emphasize the importance of the orthopedic medical act in the case of a polytraumatized patient, also the interdisciplinary collaboration.

Keywords: Polytrauma, Bilateral leg fracture, Orthopedic complications

---

THE MAJOR IMPACT OF IMMEDIATE BILATERAL BREAST RECONSTRUCTION AFTER MASTECTOMY IN PATIENTS WITH BREAST CANCER AND BRCA MUTATION

Angela Luciana Ignat[1], Aniela-Roxana Noditi, Iulia Georgiana Matei-Purge, Ioan Razvan Andrei, Alina-Roxana Hurghiș, Alexandru Blidaru[2]

[1]UMFST Tîrgu Mureş

[2]UMF Carol Davila Bucureşti

Background: Due to an increased risk of controlateral cancer in patients with breast cancer and BRCA mutation, controlateral prophylactic mastectomy is considered. Beyond the severity of the disease, breast cancer has a major psychological impact and mastectomy affects the quality of life. After the surgery of removing the breast, the next stage of treatment should involve breast reconstruction, necessary for the true healing, regaining the hope and confidence of the oncological patient who went through hard times. **Objective:** Presentation of a case of left infraclinical breast cancer T1bN0M0, stage IA, confirmed by biopsy, with family history of breast cancer and BRCA mutation. **Material and methods:** Surgical intervention was represented by therapeutic left mastectomy and subcutaneous prophylactic right mastectomy with preservation of the areolo-mamelonary complex, left axillary sentinel node biopsy and left lower axillary node biopsy and immediate bilateral breast reconstruction with Polytech

OPTICON MMS implants 265 ml placed prepectoral. **Results:** During dissection of the left breast, an intramamar ganglion (Sorgius) without radioactive signal is identified and sent for extemporaneous histopathological examination - suspicion of carcinomatous metastasis. Using gamma-camera, the left axillary sentinel lymph nodes are identified - without carcinomatous metastases. The size of the bilateral prepectoral pockets are estimated with a Mentor sizer 245 cc, then the implants are inserted. **Conclusions:** Favorable postoperative evolution is observed, without complications. The patient receives psychological support during admission, an essential element for an oncology patient. The patient presents mild elements of depression and anxiety in the medical context, amplified by the family history of breast cancer, but also by the idea of a future oophorectomy, considering the presence of BRCA mutation. The result of the surgery and the psychological support improved the patient's condition. This confirms the important benefit of immediate breast reconstruction.

Keywords: mastectomy, reconstruction, bilateral, BRCA

THE TOTAL PELVIC EXENTERATION, BETWEEN PROVIDING APPROPRIATE TREATMENT AND MAINTAINING THE QUALITY OF LIFE – A NOVEL PERSPECTIVE

Mara-Constantina Ilovan[1], Cristian Ioan Cîmpian[1], Mihai Stanca, Dan Mihai Capilna, Adrian-Alexandru Iliescu[1], Căpîlna Mihai Emil[1]

[1]UMFST Tîrgu Mureş

Background: The pelvic exenteration might be described as a hyper-radical procedure with high perioperative morbidity and mortality, as it entails the complete removal of the organs of the pelvic cavity. It can be classified as: total, anterior and posterior, all three variants requiring the extirpation of the uterus and adnexae, if not previously removed. In regard to the Levatori ani muscle, the procedure can be: supralevatorian, infralevatorian or infralevatorian with vulvectomy. Following the surgery, an urostomy, colostomy or the creation of a neo-vagina may be advisable. **Objective:** The intent is to underline the advantage of electing the pelvic exenteration as a treatment choice, due to its notable advancement in technique and its decreased morbidity and mortality rates. **Material and methods:** We report the case of a 65-year-old female patient, previously diagnosed with Stage IVa cervical cancer, managed with surgical treatment and subsequent radiotherapy. The vaginal recurrence, causing vaginal bleeding, made her a suitable candidate for a more radical approach. An infralevatorian total exenteration was performed, followed by adhesiolysis, pelvic drainage and the creation of a definitive urostomy, colostomy and a non-continent, sigmoidian urinary reservoir, using the Bricker procedure. The absence of the uterus and adnexae was noted, on the account of the former hysterectomy. The exenterative stage highlighted the presence of tumoral tissue invading the Levatori ani Muscle, which was partially resected consecutively. **Results:** The postsurgical evolution of the patient has been highly favourable, as no complications have appeared. At this moment, the patient is alive, free of disease, under adjuvant chemotherapy, due to positive peritoneal washing. **Conclusions:** Significant attention must be directed to the consideration of the adequate form of treatment in cases of severe forms of gynaecological cancer. The surgical team must take into account the option that maintains both the quality of life and the safety of the patient, while avoiding unnecessary risky procedures. Nonetheless, the total pelvic exenteration is considered a labourious procedure, but with remarkable results.

Keywords: Total pelvic exenteration, Stage IVa cervical cancer, Bricker procedure, Gynaecological cancer

---

EXAMINATION, DIAGNOSIS IN TIME AND TREATMENT STRATEGY OF SMALL CELL RABDOMIOSARCOMA - CASE REPORT

Ágnes Czimbalmos[1], Ágnes Kolcsár, Melinda-Maria Csorvasi, Tivadar Bara[1], Zsolt Zoltán Fülöp[1]

[1]UMFST Tîrgu Mureş

Background: Rhabdomiosarcoma with neuroectodermal differentiation is a very rare and aggressive cancer that can easily give rise to metastases. The prognosis of patients with rhabdomyosarcoma is often poor even with early diagnosis and complex treatment. **Objective:** To present the preoperative examination and surgical treatment of rhabdomyosarcoma. **Material and methods:** In September 2019 a male patient was hospitalized within the second Surgery Clinic of Târgu Mureş County Emergency Hospital with a thoracic wall tumor. Preoperative CT scans and intravenous scintigraphy were performed. After surgery, two control CT scans were performed. **Results:** The 55-year-old male patient has a body mass index of 38.06 (grade II obesity). A preoperative CT scan revealed the presence of a retromamelonar cancer, measuring 50/25/30mm (AP / LL / CC). This was associated with

enlargement of the lower axillary (12mm) and upper axillary and subclavian lymph nodes (8-10mm). After surgical examination, involvement of the large pectoralis muscle, intercostal muscles, and ribs was observed. By radical mastectomy and removal of axillary lymph nodes, the entire cancer was excised. Control CT performed on the third day after surgery did not describe residual cancer tissue. The biopsy confirmed the presence of small cell sarcoma. At the level of surgical incision, the presence of pathological cells has been described, with invasion of striated muscles and bony elements. After one and a half months of follow-up, the patient presented with a recurrent cancer. Another chest CT describes an extensive anterior chest wall cancer (187/99/200mm) with bilateral lung metastases. The patient was recommended oncology treatment. **Conclusions:** Early discovery is required for effective treatment of rhabdomyosarcoma, as it produces metastases within a short period of time. Radiochemotherapy is required after surgery, however, further studies are needed to increase the effectiveness of oncology treatments.

Keywords: small cell rhabdomyosarcoma, chest wall neoplasia, radical mastectomy

---

MANAGEMENT OF ACUTE MITRAL REGURGITATION AS COMPLICATION OF ACUTE MYOCARDIAL INFARCTION- CASE REPORT

Raluca Ionela Truța[1], Raluca Maria Tilinca, Marius Mihai Harpa[1]

[1]UMFST Tîrgu Mureş

Background: Myocardial infarction is one of the leading factors of mortality and morbidity nowadays even if the medical world advanced a lot. An important place in this pathology is occupied by the post-infarction complications which vary and sometimes are impossible to avoid, having a significant impact on the patient's evolution. **Objective:** The purpose of this paper is to present the management of a case of acute myocardial infarction that had as mechanical complication, acute mitral regurgitation due to the rupture of papillary muscle. **Material and methods:** We present the case of a 62-year-old patient who was hospitalized accusing angina pectoris and intense dyspnea, started 10 hours before the admission. The EKG was suggestive for postero inferior myocardial infarction. Coronary angiography showed acute occlusion of the circumflex artery, for which a revascularization procedure with pharmacological stent was performed with an apparently good angiographic result. On control ultrasound, severe ischemic mitral regurgitation was detected due to the rupture of the anterior papillary muscle. In association with a deterioration of the patient's status, it was decided to perform a mitral valve replacement with mechanical prosthesis. In the first phase, the evolution was favorable, but at the ultrasound evaluation after 5 days, a pericardial collection in large quantities was detected, with collapse of the right ventricle and aspect of swinging heart, for which a subxifoidian pericardial drainage was performed. **Results:** Postoperative, the patient was stabilized hemodynamically and he had an improvement of the clinical status (EF-45%) without other complications. **Conclusions:** Acute mitral regurgitation due to papillary muscle rupture is a severe complication of myocardial infarction which often leads to death, but properly managed it could have a favorable evolution with a good quality of life.

Keywords: myocardial infarction, mitral regurgitation, valve replacement

---

HÜRTHLE CELL CARCINOMA AND HASHIMOTO THYROIDITIS – A FORTUNATE ASSOCIATION FOR A SILENT KILLER

Lorena-Elena Păun[1], Alexandra Bianca Faraon[1], Delia Gabriela Apostol Ciobanu[1], Irene Alexandra Spiridon[1]

[1]UMF Gr. T. Popa Iaşi

Background: Hürthle cell carcinoma (HCC) is a rare malignancy of the thyroid gland (3-7%). Characteristic features such as capsular and vascular invasion are associated with an increased risk of metastasis. While Hürthle cells are a feature of some pathologies of the thyroid gland, they represent a characteristic element of Hashimoto thyroiditis. The frequency and implications of the association between HCC and HT are insufficiently described. **Objective:** We present the case of a 59-year-old female patient with clinical and paraclinical features compatible with HT, admitted to the surgical unit for thyroidectomy and postoperative management. **Material and methods:** Our patient presented to the Endocrinology Department complaining of fatigue, hair loss and muscle weakness that had been progressing for the past year. On palpation, the thyroid gland was enlarged, with left-right asymmetry. Paraclinical data showed markedly elevated TSH, low T4 and high levels of anti-thyroid peroxidase antibodies, while ultrasound highlighted multiple nodules within the parenchyma. Radical thyroidectomy was

performed and the surgical specimen was sent to pathology for diagnosis. **Results:** Gross examination revealed a 5.2/3.8/3.7 cm nodule occupying the entire left lobe, with grey-tan colour and hemorrhagic areas. Two similar nodules (0.4 and 1.5 cm) were identified in the opposite lobe. Histopathological examination reported an encapsulated proliferation with focal invasion into the adjacent thyroid tissue. The tumour cells were large, with abundant, granular cytoplasm, and large nuclei, with occasional nucleoli. Immunohistochemical examination reported tumour cells positive for thyroglobulin, TTF-1 and synaptophysin and negative for calcitonin. Vascular invasion was confirmed with CD31. A diagnosis of Hürthle cell carcinoma was made. Postoperative evolution was favorable, with absence of local or distant metastasis on checkup. **Conclusions:** HCC is a tumour that grows slowly and typically has no symptoms. The association with other conditions such as Hashimoto thyroiditis can prove a significant feature, altering the clinical setting and directing patients to appropriate specialist care.

Keywords: Hürthle cell carcinoma, thyroidectomy, thyroid cancer, Hashimoto thyroiditis

---

A SUCCESSFUL TREATMENT OF AN ATYPICAL TRAUMATIC COXOFEMORAL LUXATION

Cristian Ioan Cîmpian[1], Mara-Constantina Ilovan[1], Maria-Alexandra Chiriac[1], Dora Mihaela Cîmpian[2], Andreea Cimpoieru[2], Adrian Ivănescu[1], Denis Pasc[1]

[1]UMFST Tîrgu Mureş
[2]

Background: The coxofemoral luxation can be regarded as the displacement of the femoral head from the acetabulum. It represents a major medical emergency due to the immediate complications resulted from the traumatic lesion. Coxofemoral luxations most commonly occur after a vehicular trauma. Other causes can include a luxation due to a dysplastic hip and other forms of trauma. In general, however, patients with anterior dislocations tend to have the best prognosis. **Objective:** The purpose of this paper is to present the successful surgical management of an uncommon case, succeeding the unsuccessful orthopedic reduction. The goal of the treatment is to provide pain relief and complete the rehabilitation process. **Material and methods:** We present the case of a 54-year-old female patient admitted to the Emergency Department, following a car accident, presenting pain and functional impairment. Our final diagnosis was coxofemoral luxation with posterosuperior femoral head fracture-Pipkin II classification. The Pipkin classification is the most used for femoral head fractures, which are uncommon, but are associated with hip dislocations. The round ligament remained undamaged, therefore taking the orthopedic reduction out of discussion. Afterwards, performing surgery, the femoral head has been repositioned during open surgery, followed by osteosynthesis with three titanium screws and open readjustment procedure. **Results:** Following the surgery, the patient was hemodynamically stable, the postsurgical evolution was favorable with no signs of local and general complications. **Conclusions:** Although, the coxofemoral luxations are frequently seen in orthopedic cases, the particularity of this case is illustrated by the persistence of the round ligament. Furthermore, the atypical surgical technique renders this case fascinating.

Keywords: coxofemoral luxation, Pipkin II, osteosynthesis, femoral head fracture

---

CONTEMPORARY ENDOVASCULAR TREATMENT OF INFRAPOPLITEAL PERIPHERAL ARTERIAL DISEASE

Marius Pata[1], Raluca-Teodora Holcă[1], Pricope Stefana[1], Diana Horea[1], Teodora Maria Denisa Popa[1], Lucian Mărginean[1], Rareș Cristian Filep[1]

[1]UMFST Tîrgu Mureş

Background: Below-the-knee (BTK) peripheral arterial disease (PAD) is a challenging clinical entity, more difficult to treat compared to other anatomical locations, given its strong association with diabetes and chronic total occlusions. Endovascular treatment of infrapopliteal disease is aimed at patients with rest pain or chronic limb-threatening ischemia caused by atherosclerotic disease. Its role is vital to prevent amputation, relieve ischemic pain, heal lower extremity wounds and prevent gangrene. **Objective:** This paper aims to offer a comprehensive view of the endovascular treatment of infrapopliteal PAD. **Material and methods:** We reviewed current data related to endovascular treatment of infrapopliteal PAD, including a comparison of endovascular and surgical approaches and emerging technologies to improve long-term vessel patency. **Results:** The main endovascular intervention for BTK PAD remains percutaneous transluminal angioplasty (PTA). PTA is an endovascular procedure that involves placing a wire intra-luminally and a deflated balloon catheter over the wire until it reaches

the narrowed segment. The balloon is inflated at an appropriate pressure, which leads to widening of the arterial wall and fracture of the atherosclerotic plaque. A variety of balloons, stents, and atherectomy devices are available but there are no clear guidelines for these interventions. Although the only randomized controlled trial comparing open surgical bypass with endovascular therapy has shown equal results, an "endovascular-first approach" is becoming mainstream due to lower morbidity and procedural risks. **Conclusions:** The increasing severity of infrapopliteal PAD, the higher incidence of diabetes, and the development of new technologies have contributed to the use of endovascular treatment as a first-line therapy against symptomatic BTK PAD.

Keywords: peripheral arterial disease, percutaneous transluminal angioplasty, below-the-knee

---

SURGICAL MANAGEMENT OF SPINAL SCHWANNOMA IN A PATIENT WITH CONGENITAL VERTEBRAL MALFORMATIONS

Andreea Maria Ardelean[1], Andrea-Alexandra Bance[1], George Ungureanu[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Spinal schwannomas represent the most frequent type of benign intradural extramedullary spinal tumors observed in medical practice. These spinal nerve sheath tumors originate from differentiated Schwann cells from dorsal sensory roots and usually appear in the cervical and lumbar regions. **Objective:** The aim of this report is to present the surgical management of a spinal schwannoma in a young patient with congenital lumbar dextroscoliosis and vertebral fusion at the L4-L5 level. **Material and methods:** We report the case of a 24-year-old male patient admitted in the neurosurgical department with lower back pain which irradiated in the lower limbs, having a higher intensity on the left side. The preoperative MRI revealed a compressive intradural extramedullary spinal tumoral mass in the region of the L2 medullary cone, leading to a clinical diagnosis of schwannoma. Moreover, a complex vertebral malformation consisting of L4-L5 fusion with secondary scoliosis was discovered. An L2-L3 laminectomy and durotomy were performed before the tumoral mass ablation and its detachment from the root of origin. **Results:** The pathology report and the positive response to SOX 10 confirmed the diagnosis of spinal schwannoma. The patient recovered well after surgery and, six months later, he reports no symptoms, except for an intermittent nocturne pain in the lower limbs. **Conclusions:** Intradural extramedullary spinal tumors are frequently described in medical literature, but they are rarely associated with congenital malformations. This represents the particularity of our case report about this young patient with lumbar dextroscoliosis and L4-L5 vertebrae fusion. Prospective studies should evaluate if there exists a correlation between congenital malformations and these types of tumors.

Keywords: Extramedullary intradural spinal tumors, Spinal nerve sheath tumors, Schwannoma, Congenital scoliosis

---

RARE CASE OF SCHATZKER VI TIBIAL PLATEAU FRACTURE WITH KNEE DISLOCATION - CASE PRESENTATION

Paul Frigură[1], Ruxandra Filip[1], Thanas Shituni[1], Ferchi Cornelia[1], Andrei Manea[1], Adrian Ivănescu[1], Maria-Alexandra Chiriac[1]

[1]UMFST Tîrgu Mureş

Background: Schatzker VI is a bicondylar intra-articular tibial plateau fracture with metaphyseal-diaphyseal extension. Usually this fracture pattern involves high-energy trauma such as car accidents or falling from another level. **Objective:** Our goal is to highlight the importance of restoring dislocation in the case of knee dislocation-fractures to prevent severe neuro-vascular complications. **Material and methods:** We present the case of a 45-year-old patient who arrives in the emergency room, presenting a clinical picture dominated by pain, functional impotence, vicious position of the left knee after falling from another level. Left knee X-rays were taken in the emergency room. The dislocation was restored by orthopedic maneuvers and immobilization in plaster splint was performed. The patient was admitted in the Orthopedics and Traumatology Department for specialized treatment. After a proper neuro-vascular evaluation of the affected lower limb, surgery was performed. First a closed reduction was performed and the fracture was temporary stabilized with external fixator. Secondly, the external fixator was removed, open reduction and internal fixation with anatomical plate and screws was performed by a medial approach. After surgery a plaster cast was applied to the affected lower limb. Postoperative carefull evaluation of skin condition, peripheral pulse and neurologic status was taken periodically. **Results:** Upon

discharge, the patients general condition was good, afebrile, hemodynamically and respiratory stable, intestinal transit present, physiological urination, surgical wounds in the process of healing per-primam, without Celsius signs, peripheral pulse present, without neurological damage to the lower left limb. She was discharged with an improved surgical state. **Conclusions:** Considering the patients evolution, we emphasize the importance of immediate restoration of limb axis in knee dislocations in order to prevent severe complications such as compartment syndrome and acute peripheral limb ischemia.

Keywords: comminuted fracture, side knee dislocation, trauma

COMPLEX FOREFOOT TRAUMA ASSOCIATED WITH COMPLETE AMPUTATION OF THE INDEX TOE AND PARTIAL AMPUTATION OF THE GREATER TOE: A CASE REPORT

Ruxandra Filip[1], Paul Frigură[1], Ferchi Cornelia[1], Cristina Forgaci[1], Thanas Shituni[1], Florin Filip[2]

[1]UMFST Tîrgu Mureş
[2]Spitalul Județean de Urgență

Background: A mangled extremity is defined as a limb with injury to at least three out of four anatomical components (soft tissue, bone, nerves, and vessels). Despite advances in surgical techniques, children with severely injured lower limbs can be considered a challenge. The risk of limb ischemia due to poor cutaneous blood flow may require surgical amputation at a higher level as a late procedure. **Objective:** The aim of this paper is to highlight the surgical management of a mangled extremity on a toddler. **Material and methods:** A 2-year-old boy was admitted after suffering a sickle accident. After the initial physical exam and X- ray investigation, the diagnosis was: crushed forefoot injury, multiple forefoot open fractures, amputation of the second toe, and lack of bone substance. Informed consent of the family was obtained and surgery was performed as an emergency procedure. Debridement and cleaning of the injury were performed, then the fractures on the left greater toe, the 1st and 2nd metatarsal bones were reduced and fixed with K-wires. The cutaneous defect of the 2nd toe was closed, followed by casting below the knee level. **Results:** Postoperatively, signs of ischemia of the greater toe were noticed, but they slowly improved. A plastic surgery consult recommended postponement of the left greater toe amputation. The patient was discharged in good general condition, afebrile, with a clean dressing and satisfactory local neuro-vascular condition. The clinical course was favorable and the affected area spontaneously vascularized in time, with no need for reoperation. **Conclusions:** This case report calls attention to the correct surgical treatment of mangled extremities in order to obtain a satisfactory result.Moreover, the potential of spontaneous revascularization and wound healing in children should guide the surgeon in making the right therapeutical decision.

Keywords: partial amputation, revascularization, complex traumatism, orthopaedic surgery

---

SURGICAL MANAGEMENT OF AN ASCENDING AORTIC ANEURYSM

Eliza-Ioana Turnea[1], Andreea-Cătălina Munteanu[1], Andreea Maria Grama[1], Raluca-Diana Hagău[1], Mihaela-Larisa Croitoriu[1], Marius Harpa[1]

[1]UMFST Tîrgu Mureş

Background: Due to the complexity of the surgical technique performed, an aneurysmal pathology, especially an ascending aortic aneurysm, represents a true challenge for medical teams. Successful management of aortic aneurysm can be done trough early diagnosis and appropiate treatment. Aortic dissection is one of the most dangerous complications, as the patient might die before the situation can be stabilized. **Objective:** The study highlights the association between aortic aneurysm diagnosis and aortic valvulopathies, the way in which the patient's cardiac performance is affected, the choice of optimal operative time and postoperative results. **Material and methods:** The study included 93 patients over 18 years with the diagnosis of ascending aortic aneurysm, hospitalized between 2014-2020 in IUBCvT Tg.Mures. Data was extracted from medical records and centralized using Microsoft Excel. For statistical analysis, we used GraphPad Prism V6 and statistical tests. $p < 0.05$ is considered significant. **Results:** Out of the 93 patients, 74% were males and 26% were women with average age 57. Male patients have a statistically significantly larger aortic ring diameter than female patients ($p < 0.0001$). 57% of patients associate aortic stenosis (34.4% mild, 14% moderate, 8.6% severe). 34.4% of subjects have aortic bicuspidy, 5 of them under the age of 45. A corelation between the diameter of the aortic cross and the aortic ring diameter was identified, which concludes that 44% of patients have a systemic disease and not an isolated

aneurysm p<0,0001. There is a distinct correlation between the degree of aortic insufficiency and dilation of the left ventricle identified on 29 patients p <0.0001. **Conclusions:** Over 50% of the patients manifested aortic stenosis, aortic insufficiency with ventricular dilation was observed in 29 cases. Patients need surgical treatment before the occurrence of complications. Surgery increases quality of life and prolongs patients' life expectancy. However, a longer follow up would be required to better quantify its benefits.

Keywords: ascending aortic aneurysm, aortic pathology, cardiovascular surgery

---

RECONSTRUCTION OF NASAL PYRAMID AFTER TUMOR EXCISION

Mihaela-Georgiana Fădur[1], Dorin Dorobanțu[1], Adelina Pop[1]

[1]UMFST Tîrgu Mureş

Background: Nasal pyramid reconstruction can be a challenge for plastic surgeons.Due to its midfacial localization and special anatomy characteristics, surgeons should beware of nasal subunits in order to reach proper aesthetic results.Reconstruction technique after tumor excision depends on the size of created defect, its localization on the nose and exposure of bone and cartilage. **Objective:** The aim of this case report is to describe the management of a difficult nasal reconstruction after tumor excision using forehead flap. **Material and methods:** We present the case of a 72 years old male patient, who was admitted in Plastic Surgery Department of Târgu-Mureș for a giant nasal pyramid tumor which had drawn suspicion of basal cell carcinoma.Clinical examination revealed the size of the tumor was 6x4 cm, pink and brown coloration with multiple ulcerations areas, involving different anatomical layers of the nasal pyramid.The patient underwent general anesthesia and the tumor was excised with margins within safety borders and sent to histopathological examination which established diagnosis of mixed basal cell carcinoma.In this case, the most suitable method to cover the post-excisional defect was the paramedian forehead flap.The flap was simple to harvest causing minimal donor site deformity.Pedicle's thin base made easy for surgeon to rotate the flap without tension and cover the large nasal defect.This flap is based on axial blood supply from the supratrochlear artery.The donor site was successfully covered with split thickness graft collected from right thigh. **Results:** After three weeks the patient needed a second intervention over small areas that presented necrosis, which can frequently happen in diabetic patients.The donor site healed without complications.The recovery and evolution was favourable. **Conclusions:** In such cases, when nasal defect is large using forehead flap provides nose functionality with good aesthetic outcome.Other local flaps do not validate the matching texture, color, sufficient skin and subcutaneous tissue to cover large surfaces.

Keywords: forehead flap, carcinoma, tumor, reconstruction

INCIDENCE AND MANAGEMENT OF THE ENTEROENTERAL AND ENTEROCOLIC ANASTOMOTIC FISTULAS

Cosmin-Valentin Dragomir[1], Andreea-Adelina Dinu[1], Adrian Vlad Pop[1], Călin Molnar[1], Mircea Constantin Gherghinescu[1]

[1]UMFST Tîrgu Mureş

Background: Postoperative anastomotic fistulas present in various statistics an incidence that varies between 2.2%-51%, with an increased morbidity when associated with sepsis, malnutrition and hydro-electrolyte imbalances. **Objective:** The aim of this study is to identify the risk and predictive factors and the correlation between those and the incidence of the enteroenteral and enterocolic anastomotic fistulas. **Material and methods:** This retrospective study includes patients hospitalized over the period of one year, between 01-01-2016 and 31-12-2016. The main inclusion criteria was for patients to undergo surgery that resolved with bowel and/or colon resection, which included one or more enteroenteral or enterocolic anastomoses. **Results:** A total of 34 patients were included which amounted a total of 36 anastomoses out of which 29 enteroenteral (80.55%) - 10 with mechanical (34.48%) and 19 with manual suture (65.51%); and 7 enterocolic (19.45%) - 2 with mechanical (28.57%) and 5 with manual suture (71.42%). The results showed us that 8 cases (23.52%) were complicated by an anastomotic fistula, out of which 5 were enteroenteral (62.5%) and 3 enterocolic (37.5%), there was one case of each type of anastomosis that was made with a mechanical suture. The most impactful risk factor highlighted was Crohn's disease, which was found in 2 patients, both of them complicated with an anastomotic fistula. Other risk factors taken into consideration were the nature of hospitalization - 21 (61.76%) acute patients 6 (28.57%) complicated with an anastomotic fistula; hydro-electrolytic disorders found in 15 patients (44.11%) 5 (30%) were complicated with an anastomotic fistula; sepsis out of 14 cases (41.17%), 6 (42.85%) were complicated with an

anastomotic fistula. **Conclusions:** Although many factors contribute to the occurrence of the postoperative anastomotic fistula, Crohn's disease, the nature of hospitalization, hydroelectrolytic disorders and sepsis can be considered as predictive factors for the short-time outcome of a patient with bowel and/or colon resection.

Keywords: anastomotic fistula, postoperative complications, risk and predictive factors

---

NEGATIVE PRESSURE THERAPY TO TREAT EARLY COMPLICATIONS OF ACUTE PANCREATITIS

Dora Cordaș[1], Ana-Ștefania Solomon[1], Adelina Papancea[1], Bogdan-Mihnea Ciuntu[1]

[1]UMF Gr. T. Popa Iaşi

Background: Severe acute pancreatitis (SAP) displays as a high mortality disease, which also leads to intra-abdominal hypertension (IAH) and abdominal compartment syndrome (ACS) as associated severity markers. IAH, with a pressure over 12 mmHg, emerges within 3-5 days of admission and frequently induces ACS, consisting of visceral edema, ascites, paralytic ileus and retroperitoneal inflammation. **Objective:** This paper provides a retrospective analysis on a sample of patients treated for SAP and highlights the importance of negative pressure therapy for IAH and ACS emergencies. **Material and methods:** On a sample of 15 patients with SAP, admitted within 3 years in our intensive care unit, we studied the evolutive severity of the disease, following simultaneously the efficiency of the therapy applied. We used vacuum-assisted closing systems for applying negative pressure on the temporarily opened abdomen, while the pressure parameters were regulated depending on patients' needs. Intra-abdominal pressure (IAP) was determined using a closed-circuit urinary catheter and a pressure transductor. **Results:** Laparoscopic decompression was imposed for 14 out of 15 patients as IAP increased despite medical methods, the remaining one recording an improvement based solely on medical therapy and hemofiltration. The 14 patients who underwent surgery recorded a decrease in the IAP in the first 24h post-surgery. Thereby, the number of abdominal interventions varied between 1-9 per patient and associated complications included sealing difficulties, hemoperitoneum and digestive fistulas. After 28 days, 6 patients outlived, while 90 days later, 4 survivors remained; the major death causes were the septic complications due to pancreatic necrosis and hemorrhage. **Conclusions:** Acute pancreatitis has two peaks of mortality: in the first week of illness, primarily due to IAH and ACS and in the late stages, due to septic complications. To this extent, we recommend negative pressure treatment to overcome the premature deaths and to increase the therapeutic success.

Keywords: negative pressure therapy, acute pancreatitis, abdominal compartment syndrome

---

MYXOFIBROSARCOMA: A CONTINUOUS CHALLENGE IN DIAGNOSIS AND THERAPY

Gabriel-Ștefan Butnărică[1], Adela-Maria Cîdu[1], Cristian-Marian Bobârcă[1], Alexandra Lipan[1], Maria Mihaela Godun[1], Dan Mihăilescu[1]

[1]UMF Gr. T. Popa Iaşi

Background: Myxofibrosarcoma is a common malignancy of the soft tissue that tends to occur in the elderly, over the age of 50, and is also known for a high rate of recurrence. **Objective:** The aim of this study is to present the surgical management of a tibial tumor. **Material and methods:** We present the case of a 68-year-old female patient with heart failure class II NYHA, venous insufficiency of the lower limbs that is admitted in the Orthopedic Department of the "Clinical Rehabilitation Hospital" Iași on 18th July for a tumoral formation that appeared on the upper 1/3 on the right tibia. The patient reports insidious onset of symptoms in February (formation with a diameter of about 2-3 cm), followed by pain in March, initially on stress and prolonged orthostatism, later being present even at rest. Based on clinical and paraclinical examination, such as blood tests, X-ray, Soft Tissue Ultrasound and Computer Tomography a voluminous pretibial malignant tumor on the right tibia with aggressive intraosseous incursion was found. **Results:** The medical team opted for tibial osteotomy with oncological resection of the tumor, then reconstruction with a proximally blocked centromedullary rod and acrylic cement. The histopathological result was a moderately differentiated (G2) myxofibrosarcoma. The patient was then sent to a specialized oncology clinic for further treatment. The evolution of the patient is favourable at the time of discharge. **Conclusions:** Myxofibrosarcoma is a common sarcoma of the soft tissue of the extremities in the elderly. The diagnosis is histological, they tend to be confused with the myxoid form of liposarcoma and the molecular pathogenesis of MFS remains incompletely understood.

Keywords: tibial osteotomy, sarcoma, soft tissue tumor, myxofibrosarcoma

ATRIAL SEPTAL DEFECT IN ADULT PATIENTS

Andreea-Cătălina Munteanu[1], Maria Cristina Ciobanu, Andra-Maria Apopei, Raluca Ibănescu, Eliza-Ioana Turnea[1], Marius Harpa[1]

[1]UMFST Tîrgu Mureş

Background: Atrial septal defect (ASD) is known to be one of the most common types of congenital heart defects developed in adulthood. It represents a communication between the right and left atria and the most common types of ASD are ostium secundum, ostium primum and sinus venosus. **Objective:** The aim of this study is to analyze the severity of the right ventricular dysfunction in time and complication that may occur before surgery and postoperative results. **Material and methods:** We retrospectively analyzed 65 patients over 18 years, 44 were women and 21 males, admitted and treated for ASD, between 2017-2020 at IUBCvT Tîrgu Mureș. **Results:** The mean age of the patients is 43.36 years. From the point of view of the ASD type, 75% of the group had ostium secundum, with a common size between 11-19 mm. The complication found in most patients is tricuspid regurgitation. As for the surgical treatment, for 75% of the patients, the defect was closed with a patch and for the rest 25% it was performed a simple suture. Being a common pathology with signs and symptoms that appear after the third or fourth decade, it often remains undiagnosed. Most patients at the time of surgery have already developed right heart failure and abnormal size of the right ventricle (RV). Also, the increase in pulmonary artery pressure (PAP), correlates significantly (p=0,0035) with an increased degree of tricuspid regurgitation. **Conclusions:** The mortality rate in patients with ASD, before surgical correction is much lower for those under the age of 45, if they don't have preoperative complications. The size of RV remains abnormal usually, in case of a RV insufficiency and tricuspid regurgitation, dilation of right cavities after the surgery is typical, with an alteration of the systolic function. The risk of atrial arrhythmia is not reduced postoperatively, patient's age being an important risk factor.

Keywords: Atrial septal defect, Ostium secundum, Right ventricle, Tricuspid regurgitation

SURGICAL TREATMENT OF A COMPLICATED RUPTURED, ANEURISMATIC RADIOCEPHALIC ARTERIOVENOUS FISTULA: CASE REPORT

Ioan Octavian Fanea[1], Reka Kaller[1]

[1]UMFST Tîrgu Mureş

Background: The radiocephalic arteriovenous fistula (RCAVF) performed at wrist level is the recommended first choice of vascular access for hemodialysis. **Objective:** The purpose of this paper is to present a successfully treated recurrent rupture of an old aneurismatic, calcified RCAVF. **Material and methods:** We present the case of a 54-year-old patient known with stage 5 chronic kidney disease on hemodialysis, unilateral renal agenesis, right renal artery stenosis, secondary hypertension and an old ligated left RCAVF. The patient presented with active hemorrhage at the left RCAVF level, pain in the left higher limb, tremor and general weakness. The intraoperative diagnosis was ruptured left RCAVF, which was recanalized after ligation and transformed aneurismatic, thrombotic, calcified and ulcerated. **Results:** The patient suffered 5 surgical interventions. The first one consisted of the ligation of the implied vessels, but it resulted in tegumentary necrosis between the 2 ligations. In the second surgery the cephalic vein as well as a segment of the radial artery were removed, followed by a segmentary by-pass of the radial artery using an internal saphenous vein graft. The following 2 interventions implied hemostasis and the last one used a left calf skin graft to cover the missing forearm skin at the site of the previous surgeries. The evolution was favorable. **Conclusions:** The particularity of the case consists in the recurrent recanalization of the ligated RCAVF, resulting in a complex approach of the therapeutic procedure.

Keywords: RCAVF, hemodialysis, recurrent recanalization

PROGNOSTIC FACTORS AND SURVIVAL AFTER INTERSFINCTIAL RESECTIONS FOR LOW RECTAL CANCERS

Mihaela-Larisa Croitoriu[1], Elena Diana Crețа[1], Sofia Teodora Hărșan[1], Vlad-Olimpiu Butiurca[1]

[1]UMFST Tîrgu Mureş

Background: The location of tumors in the lower rectum and the close contact they have with the anal sphincters leads to a delicate problem from a therapeutic point of view to preserve anal continence and to obtain a higher long-term survival rate. **Objective:** The aim of this paper is to study prognostic factors and to evaluate long-term survival of patients who have received surgical treatment for low rectal cancer. **Material and methods:** We conducted a retrospective study in which we included 41 patients diagnosed with low rectal cancer that received surgical treatment in the form of intersphincteric resection between January 1, 2011 and December 31, 2017. The follow-up of patients extended for an average period of 5 years. The data was obtained from medical records and in order to organize them, we used Microsoft Excel. The statistical analysis was performed using GraphPad and to compare the differences between the environments we used the student t test. We considered the p as significant <0.05. **Results:** Patients included in this study ranged from 42 to 85 years old. Three patients were under 50 years of age (7.32%) with a survival rate of 100% and 38 were over 50 years (92.68%), with a survival rate of 55.26% (n = 21). We found that age is not influenced survival rate (p = 0.365). The 5-year survival rate was 58.53%. Out of a total of 41 patients, perirectal lymph nodes involvement was found in 17 cases. We calculated LNR (lymph node ratio) and we did not find statistically significant differences in survival between patients with positive LNR and those with negative LNRs (p = 0.77). **Conclusions:** Law rectal cancer remains a major therapeutic problem and the use of selected surgical techniques can increase the quality of life and prolong survival.

Keywords: cancer, survival, resection

AN UNUSUAL CASE OF BACTERIAL OSTEOMYELITIS: A LIFE-SAVING INTERVENTION

Andreea Evelina Cimpoeru[1], Bogdan Serban[1]

[1]UMF Carol Davila Bucureşti

Background: The management of bacterial osteomyelitis depends on multiple patient-related and disease-related factors. Late diagnosis often leads to advanced chronic osteomyelitis, requiring coordinated medical and surgical interventions. In medically compromised patients the approach is more so difficult. **Objective:** This case report illustrates the clinical evolution and management in chronic osteomyelitis associated with type 2 diabetes (T2D). **Material and methods:** A 67-year old patient with a medical history of myocardial infarction, arterial hypertension, peripheral neuropathy and poorly controlled T2D was admitted to the Orthopedics Department with extreme edema, severe pain and restricted motion of the left lower limb which progressively aggravated. Laboratory analyses revealed elevated inflammatory markers and computed tomography (CT) scan indicated an infectious substrate, showing numerous liquid accumulations, both perimuscular and intramuscular in the upper half of the tibia, popliteal fossa and thigh. Cortical destruction with periosteal new bone formation and sequestra were observed radiologically. Non-resistant Klebsiella Pneumoniae was identified through fluid culture and antibiogram. Multiple investigations were done to determine its access route, but with no success. **Results:** Targeted antibiotic therapy was implemented with no response, followed by continuous deterioration and ongoing elevation of inflammatory markers. Due to having a rapid clinical progression, complex comorbidities and a high sepsis risk, the patient underwent major amputation through the midfemur as a life-saving intervention. The postoperative evolution was gradually favorable and after 18 days the patient was discharged in a good general condition. **Conclusions:** The optimal approach in chronic osteomyelitis varies. Limb salvation might be the first intent, but potentially infected tissue equals a higher risk of sepsis. The ultimate purpose is to obtain both short and long-term survival. One should consider amputation in cases with extensive compromised bone and soft tissue, especially associated with impaired health status.

Keywords: osteomyelitis, Klebsiella Pneumoniae, major amputation, type 2 diabetes

MULTIPLE ORGAN RESECTION FOR AN ADVANCED STAGE GASTRIC CANCER

Andrea-Alexandra Bance[1], Atamyrat Bashimov[1], Vlad Ionuț Nechita[1], Nadim Al-Hajjar[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Gastric cancer is the fifth most frequent neoplasia and the third cause of death for cancer. The early stage is usually asymptomatic and in the advanced stage it can evolve with invasion and metastasis. Prognosis of advanced cancer is poor with a 5 □□□□□ overall survival rate <5%**Objective:** The aim of this report is to present the surgical management of a complex and advanced case of gastric cancer with multiple organs invasion. **Material and methods:** A 63-year-old patient presented to the surgery department for a gastric tumor formation, extending to the gastro-hepatic ligament and the body of the pancreas. The initial condition was altered with marked weight loss and fatigue. He has type 2 diabetes and paraneoplastic anemia. Following clinical and paraclinical examinations, the diagnosis of gastric neoplasm with pancreatic and hepatic invasion was made. An exploratory laparoscopy, laparotomy, total gastrectomy with body-caudal spleno-pancreatectomy, cholecystectomy and a liver resection of the 2nd and 3rd segments were performed. A mechanic termino-lateral esophago-jejunal anastomosis was performed, with a transmezocolic Roux-en-Y reconstruction. **Results:** The histopathological aspect in correlation with immunohistochemical datas suggests poorly differentiated gastric carcinoma and invasion in pancreas and liver. Postoperative ultrasound shows a collection on anterior face of the right hepatic lobe and a minor pancreatic fistula. The intestinal transit resumed the 2nd day postoperatively, and the patient could feed orally. He is discharged with improved symptoms and subhepatic drain tubes. **Conclusions:** Gastric cancer remains a significant threat to global health. The detection rate for of early gastric cancer is low because of the lack of specific signs and most patients develop advanced-stage disease. The preferred treatment for advanced gastric cancer is surgery. Because the patient doesn't have metastases, even if it is an invasive form of cancer, the resection of the tumor could be performed.

Keywords: gastric cancer, liver invasion, pancreatic invasion, total gastrectomy for invasive gastric carcinoma

CONGENITAL CHYLOTHORAX: WHAT IS TO BE DONE? A CASE REPORT.

Bogdan-Dan Sbârcea[1], Andreea-Beatrix Bălan[1], Claudiu Molnar[1]

[1]UMFST Tîrgu Mureş

Background: Congenital chylothorax represents a severe fetal malformation. The rarity of this fetal condition does not lessen its importance, this being the reason it represented a "challenge" from a scientific and professional standpoint. **Objective:** This paper followed the realization of a scientific documentation of the data gathered from specialty literature ("update") and presents a clinical case and its particularities regarding medical management. **Material and methods:** This case report is also a review of the most important data from the specialty literature regarding the aforementioned anomaly; this is a case presentation of a hospitalized patient at Obstetrics-Gynecology No. 1 ward at the Emergency County Hospital Târgu Mureș in 2020, and highlights the aspects regarding the diagnosis, the therapeutic approach and the evolution of the case from admission until discharge, based on the information from the observation sheet. The patient was monitored during her pregnancy, the prenatal diagnosis was suspected through imaging (fetal ultrasound and MRI). The birth was completed by lower-segment transverse Cesarean section, the neonatal diagnosis confirming the chylothorax. The postpartum evolution was favorable from an obstetrical and neonatal point of view, through a multidisciplinary management. The particularity of the case consisted in positive SARS-CoV 2 during hospitalization, both in the mother and the newborn. **Results:** The case is presented with a rich iconographic material based on the information gathered before and during the hospitalization, through the stages of the diagnosis and the therapeutical approach from a materno-fetal point of view, also encompassing the evolution of the case until discharge. **Conclusions:** 1. Congenital chylothorax represents a very rare congenital anomaly. 2. This case represented a scientific challenge, with a positive outcome. 3. The applied medical management was correct from a materno-fetal point of view.

Keywords: congenital chylothorax, case report, malformation, anomaly

ANENCEPHALY: A SECOND TRIMESTER CHALLENGE? A CASE REPORT.

Andreea-Beatrix Bălan[1], Bogdan-Dan Sbârcea[1], Claudiu Molnar[1]

[1]UMFST Tîrgu Mureş

Background: Anencephaly (with its diverse clinical and anatomical variations) represents a severe congenital malformation, incompatible with life. Early diagnosis of the anomaly allows a correct maternal and fetal management from a scientific point of view. **Objective:** This paper presents a case of delayed anencephaly diagnosis, during the second trimester of pregnancy due to deficient antenatal follow-up. Based on the information recorded in the medical file in conjunction with published data, this paper will also perform an update on current medical literature. **Material and methods:** The case of anencephaly (meroanencephaly) was diagnosed during the second trimester of pregnancy in a patient hospitalized at the Obstetricts-Gynecology No. 1 Ward at Emergency County Hospital Târgu Mureș in 2020. A diagnosis was made based on the clinical, echographic and laboratory features which also guided the therapeutic strategy. The therapeutic solution was obstetrical, pharmaceutical, non-surgical and the anatomopathological examination confirmed the antenatal diagnosis. The mother's evolution was favorable, without complications. The therapeutical drug-induced abortion for this major central nervous sistem anomaly, incompatible with life, has represented the optimal and efficent method for solving this case. **Results:** The ultrasound images and the data from the medical files regarding the evolution of the case from admission until discharge represent a vast iconographic material and were the base of a scientific communication which was appraised at a national level. **Conclusions:** 1. Anecephaly represents a major congenital malformation incompatible with life. 2. The obstetrical therapeutical conduit was performed successfully.3. The monitoring of pregnant women in the first trimester represents the "prophylaxis" of this anomaly.

Keywords: anencephaly, second trimester, case report, malformation

THE IMPACT OF SARS COV-2 ON THE SURGICAL TREATMENT OF INGUINAL HERNIAS

Cristina-Petruța Palcu[1], Călin Molnar[1], Cristian Russu[1]

[1]UMFST Tîrgu Mureş

Background: SARS COV-2 is the virus causing a respiratory infection that created the current pandemic context. Inguinal hernia represents an important part of surgical pathology. Surgery is the only effective way of treatment and can be performed using classic or laparoscopic procedures. **Objective:** The aim of this study is to assess the impact of SARS COV-2 pandemic on the surgical treatment for inguinal hernia. **Material and methods:** We conducted a retrospective, observational study that included 364 patients admitted in the Surgery I Department of Emergency County Hospital in Târgu Mureș for a period of 2 years (2019 - 2020). We collected the demographic data of patients, admission criteria, diagnosis according to the type of hernia, the surgical treatment procedure, duration of the intervention, the evolution and complications, and duration of hospital stay. All data were organized in an Excel database and statistically analyzed. **Results:** The patients were divided into two groups: group I - 261 (72%) patients, were treated before the SARS COV-2 pandemic and group II - 103 (28%) treated in 2020. Most patients were men (85%) aged between 19 and 91 years. Laparoscopic surgery was used for 42% compared to classic procedure in 58% of the patients in group I and 25% compared to 75% of the patients from group II. The percentage of emergency procedures was almost similar in the two studied groups (11% vs. 19%). Low postoperative complication rates were encountered in patients from both groups, without statistically significant differences. **Conclusions:** We can see a strong impact of the current context of SARS COV-2 pandemic on decreasing the number of patients treated for hernias. An impact on the type of surgical procedure used for inguinal hernias, was registered as well, the classic procedure being preferred over the laparoscopic approach.

Keywords: inguinal hernia, SARS COV-2 pandemic, surgical treatment, classic procedure

OBESITY, A TRAP IN DIAGNOSIS

Maria Mihaela Godun[1], Alexandra Lipan[1], Adela-Maria Cîdu[1], Cristian-Marian Bobârcă[1], Gabriel-Ștefan Butnărică[1], Bogdan-Mihnea Ciuntu[1], Adelina Papancea[1]

[1]UMF Gr. T. Popa Iaşi

Background: Untreated, obesity tends to progress and take over more and more young people, diminishing their physical and socio-cultural activities, but especially the ways of diagnosis in medical-surgical emergencies, slowing the evolution and therapeutic success in some cases. **Objective:** This presentation aim is to highlight how the morbid obesity can lead to a wrong diagnosis, with impact on the therapeutic decision and a delayed treatment. **Material and methods:** We present the case of an 18-year-old patient from a rural area with morbid obesity (BMI = 47), who was admitted in the Emergency Reception Unit with a general influenced condition, with significant painful sensitivity in the right iliac fossa, fever and vomiting with insidious onset about 5 days ago. Clinical, paraclinical and imaging diagnostic methods performed lead to a "trivial appendicular pathology". **Results:** Emergency surgery was performed by laparoscopic surgery but classic surgical approach was necessary. Intraoperatively, a large amount of free intra-abdominal fluid was detected with false membranes, parceled necrosis of the omentum and peritoneum, retroperitoneal abscess. The cause? A perforated acute gangrenous appendicitis, with a partially self-amputated appendix, with retroperitoneal abscess that generated an old peritonitis and a fulminant septic condition in a young patient but with an imbalance of metabolic functions, which delayed the diagnosis. The evolution of the patient was slowly favorable, with a fairly long period of hospitalization in the Intensive Care Unit and multiple surgical interventions, but with minimal complications in such a crawling patient. **Conclusions:** In this way, the global problem that obesity plays an important role in the daily life and the need for an adequate lifestyle has been demonstrated once again. The fight against sedentary lifestyle and an adequate caloric intake, remaining an asset in maintaining the optimal health status.

Keywords: obesity, perforated acute gangrenous appendicitis, abdominal pain

THE ROLE OF CT SCAN IN THE DIAGNOSIS OF CECAL ADENOCARCINOMA COMPLICATIONS – A CASE REPORT WITH COMPLEX SETTING INCLUDING SMALL BOWEL OBSTRUCTION AND URETERO-INTESTINAL FISTULA

Claudia Raluca Marginean[1], Alexandra Mihaela Ratiu[1]

[1]UMFST Tîrgu Mureş

Background: Colorectal cancer, the most frequent type of gastrointestinal neoplasm is a multifactorial pathology, influenced by both genetic and environmental factors. The lifetime risk of developing colorectal malignancy is slightly higher in men (4.3%) and is decreasing among older population. Cecal adenocarcinoma incidence varies according to different studies up to 20% of total colorectal cancers and it's usually symptomatic only in advanced stages, when the therapeutic approach is more difficult. **Objective:** The aim of this paper is to emphasize the role of Computed Tomography in assessing a rare complication of subtotal colectomy with ileosigmoid anastomosis for cecal adenocarcinoma. **Material and methods:** We present the case of a 69 years old female patient, diagnosed in November 2020 with cecal adenocarcinoma, treated chemotherapeutic and surgical by subtotal colectomy with ileosigmoid anastomosis. In April 2021, the patient referred to the Emergency Department with gastrointestinal symptoms, so an abdominal and pelvic CT scan with IV contrast was performed. Later on, the patient developed anuria and worsening of the gastrointestinal symptoms and was referred to Radiology for further evaluation. **Results:** Native CT scan of abdomen and pelvis revealed multiple gas-fluid levels suggesting bowel obstruction, associating an area of ileal fibrosis with compression and subsequent left ureteral decalibration, resulting in grade II ureterohydronephrosis. Residual IV contrast in both kidneys five days after administration was depicted, same as visualization of iodine solution in rectum, suggesting an ureterorectal fistula. Peritoneal nodules and a single liver metastasis were also detected on the CT scan. **Conclusions:** CT scan is a very useful and rapid tool for assessing the systemic impact of cecal adenocarcinoma, its gastrointestinal complications with acute onset and also urinary system involvement. By using contrast medium and multiplanar imaging technique, CT ensures the best diagnostic and therapeutic approach of complex medical cases.

Keywords: cecal adenocarcinoma, ileal fibrosis, ureterorectal fistula

COCHLEAR IMPLANT AUDITORY REHABILITATION IMPROVES QUALITY OF LIFE IN THE ADULT POPULATION

Teodora Maria Denisa Popa[1], Raluca Maria Popa[1], Adrian Vlad Pop[1], Marius Pata[1], Ana-Maria Alexandra Muscalu[2], Adriana Neagoș[1]

[1]UMFST Tîrgu Mureş
[2]UMFST Tîrgu Mureș

Background: Until recently complete hearing loss was considered incurable. Advancement in the fields of medical science and biotechnology has led to high-end cochlear implant devices development. Quality of life (QOL) in patients with complete hearing loss is severely impaired and years lived with disability are drastically increasing in the past decades. QOL can be assessed by using the Nijmegen Cochlear Implant Questionnaire (NCIQ). **Objective:** The aim of the study is to compare the objective QOL in patients before and after cochlear implant surgery. **Material and methods:** A short-term prospective study was conducted on patients that underwent cochlear implant surgery at the Otorhinolaryngology Clinical County Hospital of Targu-Mures. NCIQ is a questionnaire that consists in 60 multiple choice questions on basic and advanced sound perception, speech reproduction, self-esteem, activity limitations and social interaction. NCIQ was used to objectively assess QOL before cochlear implantation, when patients were using a classic hearing aid device, and at 12 months post-cochlear implantation. A higher score equals a better outcome. The questionnaire was carried out by telephone. Statistical analysis was performed using GraphPad Prism 9. **Results:** Twelve patients were included out of which 7 were females. A mean general score of 74.76 (p=0.024) was reported in patients with cochlear implant and 34.39 in the ones with hearing aid. Before cochlear implantation, social (47.74) and psychological (44.37) domains had the highest scores. After cochlear implant the social (80.96) and psychological (72.87) domains improved with the advanced sound perception (78.75; p=0.041) and activity limitations (85.41; p=0.031) subdomains achieving the highest outcomes. **Conclusions:** The results show a significant improvement QOL, mainly in the psychological and social domains demonstrating increased social and psychological outcomes at 12 months after surgery.

Keywords: Hearing Loss, Cochlear Implant, Nijmegen score

THE IMPORTANCE OF RECONSTRUCTION THE LOWER LIP AFTER EXCISION OF A LARGE CARCINOMA

Alexandra Lipan[1], Maria Mihaela Godun[1], Adela-Maria Cîdu[1], Gabriel-Ștefan Butnărică[1], Cristian-Marian Bobârcă[1], Mihaela Perțea[1]

[1]UMF Gr. T. Popa Iaşi

Background: The complex structure of the lower lip has a remarkable functional and aesthetic role. The reconstruction can be very challenging and it is performed usually post-traumatic or post excisional. **Objective:** This paper highlights the variety of the reconstruction techniques used on the lower lip. **Material and methods:** In order to conduct this study, we selected 15 patients, aged between 30 and 65 years old, from the Plastic surgery and Reconstructive Microsurgery Clinic. The lesions had a natural evolution of 1 to 4,5 years of the tumoral lesions. By analyzing the data we collected, we have arrived at the following findings: 4 of the tumoral lesions were represented by haemangiomas, 3 of them were epidermal inclusion cysts and 7 were carcinomas: 4 squamous cell carcinomas and 3 basocellular. Concerning the dimensions of the defect, in 5 of the cases, they were less than 30% of the surface of the lip and in the other 2 cases, they were more than 50% of the lower lip. In the last-mentioned cases, the surgical techniques used were "fan flap", Karapandzic flap, simple or associated (in 2 cases) with Abbe flap. **Results:** The postoperative evolution was satisfactory in all the cases. Based on the histopathological examination, the final diagnosis was made. It wasn't found any recurrence at 1 year in all our 17 carcinomas cases. In the case of the diagnosis with squamous cell carcinoma, the oncological result specific to each lesion was confirmed. **Conclusions:** Besides the aesthetical good results, the reconstruction aims to maintain the mastication and the oral functionality and to avoid malocclusion and saliva loss. The reconstruction techniques must be chosen depending on the dimensions of the defect. It can be a real challenge for the surgeon if the lesion extends on the entire surface of the lower lip.

Keywords: lower lip, flap, carcinoma

THE IMPORTANCE OF PROMPT CLINICAL MANAGEMENT OF HYPOXIC LIVER INJURY

Georgian-Nicolae Radu[1], Eliza Russu, Bogdan Budianu, Iasmina Santa[1], Cătălin Coșarcă[1], Adrian Mureșan[1]

[1]UMFST Tîrgu Mureş

Background: Hypoxic liver injury (HLI) is a rare pathological condition caused by insufficient hepatic perfusion. In terms of oxygen deprivation, a normal liver is not susceptible to ischemic injury due to its dual blood supply, however HLI may results from a combination of low blood flow and pre-existing hepatic conditions. **Objective:** The main purpose of this report is to highlight the importance of rapid recognition and treatment of HLI. **Material and methods:** We report the case of a 59-year-old female who was admitted in the surgery department complaining about headache, weakness, loss of appetite and abdominal pain. She is known to have a considerable history of cardio-vascular pathologies. Previously she underwent an aorto-bifemoral by-pass procedure as a treatment for Leriche Syndrome. Further investigations were performed in order to clarify the present condition. Laboratory tests revealed moderate anemia and elevated liver enzymes. The Angio-CT scan showed a 90% stenosis of celiac trunk, hepatomegaly and ascites. Therefore, taking into consideration both the paraclinical examinations as well as the symptoms of the patient, the diagnostic was oriented to an ischemic hepatitis due to a major obstruction of its oxygen supply along with a pre-existing hepatic congestion. Having in mind the comorbidities of the patient, we decided to perform an interventional radiology procedure by stenting the celiac trunk. **Results:** The outcome of the patient was favorable due to an early identification and prompt treatment of the disease. The patient was discharged 4 days after the intervention. The postoperative follow-up revealed a normal range in GOT,GPT levels and the absence of abdominal pain. **Conclusions:** The main criterion used to identify HLI is a massive but rapidly reversible increase in serum transaminase levels,in the absence of other acute causes of liver injury. Therefore, immediate management of the underlying cause of HLI is crucial due to its association with high mortality rate(up to 50%).

Keywords: ischemic hepatitis, Leriche Syndrome, stenosis, liver enzymes

IMMUNOSUPPRESSIVE THERAPY - A SERIES OF UNFORTUNATE COMPLICATIONS

Cristian-Marian Bobârcă[1], Gabriel-Ștefan Butnărică[1], Adela-Maria Cîdu[1], Maria Mihaela Godun[1], Alexandra Lipan[1], Petru Soroceanu[1]

[1]UMF Gr. T. Popa Iaşi

Background: End-stage kidney disease is a long-term irreversible decline in kidney function and patients must accept either hemodialysis or transplant. Kidney transplantation represents the best choice for these patients, ensuring better quality of life and longer survival rates, but in order for the patient to maintain a functioning graft, they need to undergo lifelong immunosuppressive medication (induction and maintenance therapy). **Objective:** It is known that graft failure, rejection and poor outcomes may arise from poor medication adherence. Medical management of the kidney transplant patient is challenging for physicians unfamiliar with caring for these patients. This includes multiple drug interactions, side-effects and drug toxicities. Diagnostic and treatment challenges can also arise from infections and malignancies related to long-term immunosuppression. **Material and methods:** In this material we present the case of a young adult diagnosed with chronic kidney disease, that underwent a kidney transplant procedure. His chronic postoperative therapy was aimed at immunomodulation with two drugs (tacrolimus & mycophenolic acid). The side effects consisted of severe and extensive ulcerations in the small bowel mucosa, accompanied by active bleeding and perforation. During surgery, perforated parts of enteritis with active bleeding were noted, with an increase in incidence of lesions at ileo-jejunum level. **Results:** Postoperative management was provided by the intensive care unit, where the return of bowel function could be observed with accelerated transit and persisting melena. Unfortunately, after a month of ICU and other several other interventions the patient's death was declared due to MOFS. **Conclusions:** The surgical and intensive care management of this patient was highly challenging, the physicians having to balance between keeping the chronic immunosuppressive medication in order to avoid graft rejection and trying to control the severe gastrointestinal symptoms and bleeding.

Keywords: kidney transplant, immunosuppression, lower gastrointestinal bleeding, ulcerations

NODULAR MALIGNANT MELANOMA IN COEXISTENCE WITH CEREBRAL MENINGIOMAS – A POSSIBLE THREAT

Gabriela Oancea[1], Andreea Mocanu[1], Sorina-Maria Mărginean[1], Rus Iulia-Maria[1], Rafael Florin Chiș[1], Luminița Decean[1]

[1]UMFST Tîrgu Mureş

Background: Malignant melanoma (MM) is one of the most aggressive types of skin cancers, with a drastically increased incidence over the recent years and with a high potential of cerebral metastasis. Metastasis of MM in already existing meningiomas represents an extremely rare phenomenon that can be easily missed and diagnosed only when neurological deficits appear. **Objective:** The objective of this report is to raise awareness about tumor-to-tumor metastasis in patients with MM and meningiomas. **Material and methods:** We report the case of a 61-year-old female, who presented with a tumoral lesion on her left lower limb approximately 5 years after first noticing it. A tumoral excision for this lesion along with lymphadenectomy were performed under general anesthesia, the defect was covered with a skin flap from the patient's thigh and the probe was sent to pathology. The histopathological examination confirmed the diagnosis of nodular MM with superficial spread, stage T4a, with a Breslow index of 13mm, Clark level V and immunohistochemical positivity for HMB45 marker. To establish an accurate treatment, the patient underwent genetic testing and a full body CT exam. **Results:** Nodular MMs associated with superficial spreading are frequently reported in advanced stages as in this case and have been correlated with a lower survival rate and a higher metastatic potential. The head CT scan revealed the presence of two lesions suggestive for meningiomas and given the fact that there were reported cases of tumor-to-tumor metastasis from melanoma to meningiomas, we consider that a cautious attitude should be taken in this case by closely monitoring its evolution. **Conclusions:** Unfortunately, a great majority of cases of MM in our country are diagnosed in an advanced stage and cerebral metastasis from MM are frequently encountered, so the periodic examination after surgical resection of the primary tumor should include a close monitoring of the meningiomas where their presence was spotted.

Keywords: malignant melanoma, meningioma, skin cancer, tumor-to-tumor metastasis

MAMMARY PAGET'S DISEASE IN MALE BREAST WITH INVASIVE DUCTAL CARCINOMA - CASE REPORT

Sorina-Maria Mărginean[1], Rareș Georgescu, Mihaela Șincu, Rus Iulia-Maria[1], Bogdan-Vasile Gherghel[1], Ovidiu S. Cotoi[1], Sabin Turdean[1]

[1]UMFST Tîrgu Mureş

Background: Paget's disease (PD) of the breast is a malignant condition produced by the extension of an underlying breast cancer (BC) in the galactophorous ducts, characterized by a single exudative lesion with eczematous-changes of the nipple and areolar skin. Breast carcinoma in male pacients accounts for less than 1% of all cases of cancers in men and therefore, male mammary PD has an extremely rare occurrence. **Objective:** The aim of this report is to emphasize the importance of early diagnosis and treatment of PD in men due to its frequent association with a primary breast neoplasm, as well as adequate oncological follow-up after surgical resection in male patients with BC. **Material and methods:** A 64-year-old male with no medical history of interest, was admitted for evaluation due to bilateral gynecomastia associated with erythematous skin changes in the left nipple area, clinically suggestive for PD. The mammography exposed a 3 cm lobulated, irregular high-density mass of the left subareolar region. The medical team opted for a total mastectomy with concomitant sentinel lymph node removal. **Results:** The histopathological analysis confirmed the diagnosis of invasive carcinoma of no special type(NST) with immunohistochemical positivity for : E-cad, RE, RP, associated with the presence of Paget's cells in the epidermis (cells tumors were positive for CTK8/18 and CTK7 stain). The sentinel lymph node examination did not reveal any sign of metastasis (CTKAE1/AE3 stain was negative in all three sentinel lymph node). **Conclusions:** Mammary Paget's disease is an uncommon condition both in women and men, usually associated with an underlying chronic disorder of the breast. This case highlights the importance of thorough examinations once new lesions or modifications of the nipple-areolar complex arise, for discovering the primary pathology at an early stage, in order to establish an accurate treatment.

Keywords: Cancer, Male, Breast, Paget's Disease

SURGICAL MANAGEMENT OF A 50YO MALE POLYTRAUMATIZED IN A ROAD TRAFFIC COLLISION – CASE REPORT

Iasmina Santa[1], Cezara-Ilinca Stanciu[1], Gabriel Ilie Otrocol, Georgian-Nicolae Radu[1], Nicolae Stanciu[1]

[1]UMFST Tîrgu Mureş

Background: The care of the orthopedic patient with polytrauma remains an intriguing issue because it's requiring a multidisciplinary approach involving not only our specialty, but also vascular surgery, general surgery and Intensive care unit, in order to optimize future outcome **Objective:** The goal of this report is to present the surgical management of the polytraumatized orthopedic patient, using minimally invasive techniques with the aim of achieving a satisfactory result. **Material and methods:** A 50 yo male patient was admitted to the Emergency Department following a road traffic collision. He has sustained multiple lower limb fractures, cominutive mid-distal right femur fracture, cominutive mid-proximal right tibial fracture, bifocal right fibular fracture and the most significant injury being a cominutive opened midschaft tibial fracture, Gustillo type II. After a series of clinical investigations (evaluation of the MESS score-score of 5 points, no indication of amputation) and paraclinical investigations (Full body CT scan and full blood tests) it's decided to hospitalize the patient on the Orthopedics and Traumatology department. Because of the serious general condition and the multiple cominuted fractures, after thorough wound care, temporary continuous skeletal traction and bed-rest have been instituted. Thromboprophylaxis, analgesic, anti-inflammatory, gastroprotective and antibiotic treatment was given. Because of secondary anemia, blood transfusion was necessary. After a careful multidisciplinary evaluation (orthopedics, vascular surgery, general surgery) and an improvement of the biological status, surgery was performed. Because of the important comminution and the hemorrhagic risk, minimally invasive osteosynthesis has been done: distal right femur, right tibial plating and intramedullary left tibial nailing **Results:** Our case presented a good outcome, the patient being discharged in an improved condition. The rehabilitation protocol involved physical therapy without any weight-bearing until the appearance of radiological bone healing signs **Conclusions:** Minimally invasive surgery aims to avoid major soft-tissue trauma, decreases recovery time and consists in anatomic reconstruction, length, axis and rotation restoration

Keywords: Minim Invasive osteosynthesis, Open fracture, Transscheletal continuous traction, Polytrauma management

TOTAL KNEE ARTHROPLASTY WITH REVISION IMPLANTS: A CASE REPORT

Maria Baldea[1], Sergiu Vasile Bugnariu[1], Dora Denisa Avram[1], Octav Russu[1]

[1]UMFST Tîrgu Mureş

Background: Constrained condylar knee (CCK) prothesis are generally used for revision surgeries. To improve implant stability in severe knee arthritis with extreme deformities, along with a ligament imbalance, CCK prothesis might be used by surgeons in primary total knee arthroplasty (TKA). **Objective:** Aim of this paper is to report a case where CCK implant was used in a primary TKA for knee arthritis associated with ligamentous deficiency. **Material and methods:** We present a case of a 48-year-old woman diagnosed with rheumatoid arthritis and secondary knee and hip arthritis. As a consequence of her diagnosis, our patient has a history of total revision of right hip, a cementless replacement of left hip and a TKA of her left knee, both of her knees showing over 10° valgus deformity. She also suffered a periprosthetic fracture (Vancouver B), which healed with conservative treatment. Clinical examination of her right knee showed besides severe degenerative arthritic changes a medial collateral ligament (MCL) deficiency. To fix her left knee, primary TKA was performed with a primary posterior stabilized implant and for her right knee, in order to compensate postoperative knee stability (MCL deficiency), a CCK implant. **Results:** In 24 hours, there were significant results in terms of functional recovery, including normal knee angle, and stable, full weight-bearing gait. Short term results (1 year) regarding her left knee showed a constant improving: mobility, walking distance, pain, etc. **Conclusions:** CCK prothesis offers safe and practical treatment in primary total knee arthroplasty for patients with severe axial deformities and deficient medial and/or lateral ligaments.

Keywords: Total knee arthroplasty, Revision implants, Arthritis

MULTI-LIGAMENT KNEE INJURY: CASE REPORT

Sergiu Vasile Bugnariu[1], Maria Baldea[1], Dora Denisa Avram[1], Octav Russu[1]

[1]UMFST Tîrgu Mureş

Background: Knee dislocations (KD) have been reported more oftenly in literature, being hard to diagnose and treat. Early and delayed complications might occur, with difficult surgery and rehabilitation. **Objective:** Aim of this case report is to present a KD (high-velocity) from clinical assessment, through diagnosis, surgery and full recovery. **Material and methods:** We present a case of a 38-year-old male firefighter, with a high-velocity knee trauma; clinical examination under anesthesia revealed increased varus laxity, positive anterior and posterior drawer tests, important joint effusion with important hematoma. After X-ray evaluation, diagnosis was KD (type III Schenk) with anterior, posterior cruciate (ACL, PCL) and posterolateral corner (PLC) ruptures. Because of multiple graft tissues needed, allograft was only logical option. Intraarticular part was performed arthroscopically (tourniquet), PLC being performed after tourniquet release. Grafts preparation was performed before surgery (0.5 hours), based on MRI and clinical evaluation. Four tunnels (2 femoral, 2 tibial) were drilled for ACL and PCL reconstruction, grafts were passed, and fixed, after proper tensioning, with interference screws; PLC reconstruction (without tourniquet) was performed, with intraoperative X-ray control to avoid tunnels interference, with graft passage, proper sequential tensioning and interference screws fixation. We assessed range of motion (ROM) and immobilize with a knee splint. **Results:** After skin healing, knee's stability was regained and proper ROM was achieved after a long immobilization and difficult rehabilitation regimen. One year later, clinical examination showed proper ROM, good knee stability and good activity level. **Conclusions:** Multiple ligament knee (MLK) reconstruction in a KD is feasible, with good results after proper knee immobilization and rehabilitation. Allografts are safe and effective, with no graft rejection.

Keywords: Knee trauma, Multiple ligaments, Allograft

PARTICULARITIES AND MANAGEMENT OF PANCREATIC NEUROENDOCRINE TUMORS

Alexandru Ilie Butilca[1], Patricia-Alexandra Tuca[1], Godja Dumitru, Cosma Catalin, Marian Botoncea[1], Calin Molnar[1]

[1]UMFST Tîrgu Mureş

Background: Pancreatic neuroendocrine tumors represent approximately 1-2% of all pancreatic tumors and about 7% of all neuroendocrine tumors. **Objective:** The objective of this paper is to present the particular aspects of the neuroendocrine pancreatic tumors in patients admitted to the Surgery Clinic No.1, Emergency County Clinical Hospital of Targu Mures. **Material and methods:** A total of 166 patients admitted to the Surgery Clinic No.1, Emergency County Clinical Hospital of Targu Mures with malignant pancreatic tumors, between 2013-2018 were included in this study. Of these patients 111 presented neoplasms localized in the head of the pancreas, 23 in the body, 20 in both body and tail, and 8 in the tail of the pancreas. The purpose of the study was to see the particularities of the tumors, such as incidence, localization of the neuroendocrine tumor, the management of the patients, and the presence or absence of secondary determination. **Results:** We found that 3% of all the pancreatic tumors are represented by neuroendocrine tumors, which were confirmed by the histopathological examination. It was revealed that 60% of the neuroendocrine tumors were localized in the head of the pancreas, while 40% had a body and tail localization. The management consisted of minimally invasive procedures (20%), palliative surgery (20%), and major pancreatic surgery (60%). Secondary determinations were found in 60% of the patients with neuroendocrine tumors. **Conclusions:** The head of the pancreas is the most common localization for neuroendocrine pancreatic tumors, while major surgery remains the most used approach when treating patients with this pathology.

Keywords: neuroendocrine tumors, pancreas, pancreatic surgery

ANASTOMOTIC LEAKAGE AFTER COLORECTAL SURGERY: INCIDENCE AND RISK FACTORS

Patricia-Alexandra Tuca[1], Alexandru Ilie Butilca[1], Godja Dumitru, Cosma Catalin, Marian Botoncea[1], Calin Molnar[1]

[1]UMFST Tîrgu Mureş

Background: Anastomotic leakage represents one of the most severe postoperative complications of colorectal surgery and despite being potentially life-threatening, it is still highly unpredictable. **Objective:** The purpose of this paper is to present the characteristics of anastomotic leakage in patients with colorectal surgery admitted to the Surgery Clinic No.1, Emergency County Clinical Hospital of Targu Mures. **Material and methods:** A total of 152 patients who underwent colorectal surgery in the Surgery Clinic No. 1, Emergency County Clinical Hospital of Targu Mures, between 2014-2019 were included in this study. 78 patients had a high anterior rectal resection and 74 had a low anterior rectal resection. The main aspects we wanted to observe were the incidence of the anastomotic leakage, the prevalence of the main risk factors, and the postoperative mortality associated with fistulas. **Results:** The incidence of anastomotic leakage was 14.93%, of which 69,5% had a high anterior rectal resection and 30.5% had a low anterior rectal resection. Of the 23 patients that developed fistulas, 73.91% were male, 82.6% presented with cardiovascular diseases, 43.4% were diagnosed with anemia (Hb < 11g/Dl), 17.4% had type 2 diabetes, 17.4% had undergone preoperative radiation treatment, 8.7% had a BMI higher than 30, 8.7% admitted to smoking cigarettes, and the mean age of the group was 73 years. The postoperative mortality correlated with anastomotic leakage was 8.7%. **Conclusions:** The most common risk factors turned out to be cardiovascular pathologies, followed by anemia. The incidence of fistulas was significantly higher in the group of patients with high anterior rectal resection compared to the group with low anterior rectal resection.

Keywords: anastomotic leakage, anastomotic fistula, colorectal srugery

TECHNIQUES AND METHODS OF PHYSICAL-KINETIC RECOVERY APPLIED POST-OPERATIVELY IN PARTIAL ACHILLES TENDON INJURIES

Țipter (Palcu) Natalia Cornelia[1], Simona Szasz, Horatiu-Valeriu Popoviciu, Patricia-Maria Mălăncrăvean, Simona Szasz[1], Horațiu- Valeriu Popoviciu[1]

[1]UMFST Tîrgu Mureş

Background: Achilles tendon has a very important role in foot biomechanics being necessary for walking, running and jumping. Through this study we followed the evolution and response of subjects in applying the recovery treatments. **Objective:** The main objective of this study was to highlight the efficiency of physical-kinetic treatment in the recovery for post-operative partial rupture of Achilles tendon. The description, evaluation and comparison of treatment used for approaching the physio-kinetic recovery, with and without methods of electrotherapy. **Material and methods:** The research study will follow a prospective design that interested 8 patients diagnosed with traumatic one-side partial rupture of Achilles tendon, who were under physical-kinetic post-operative recovery treatment at the clinic SC. Olikinetic S.R.L Târgu Mureş and SC. Fizionova SRL Târgu Mureş. The subjects were divided in 2 groups: one group of 3 patients that followed a recovery based on a protocol of kinetic exercises and a group of 5 patients that benefit from a protocol of kinetic treatment and TECAR therapy-high frequency diathermic physical treatment. **Results:** The results were analysed in terms of some indicators: the visual analogue scale (VAS) for measuring the pain, the level of mobility, and the strength test and were applied individual kinetic programs particular for recovery and TECAR therapy. It has been shown that for the subjects who applied TECAR therapy the muscular strength was far better improved, amplitude of movement (ROM), but also a noted pain relief than those with kinesiotherapy. **Conclusions:** The results obtained confirmed the hypothesis according to which the patients who applied TECAR therapy as an aid in the recovery process, comparative with the subjects that applied kinesiotherapy treatment present acceleration in the process of recovery and the efficiency of combined therapy.

Keywords: Achilles tendon, TECAR Therapy, Post-operative recovery

A RARE CASE OF OSTEOID OSTEOMA PRESENTED IN A CHILD.

Sabina- Irina Grecu[1], Iulia-Maria Lupu[1], Ciprian-Gelu Grigoroaea[1], Bogdan-Vasile Gherghel[1], Emilia-Maria Gaitan, Horea-Gheorghe Gozar[1], Zoltan Derzsi[1]

[1]UMFST Tîrgu Mureş

Background: Osteoid osteoma is a benign lesion of the bone, usually located in structures defined as long bones. This tumor can be asymptomatic, but in most cases during physical activity, pain and discomfort are observed. **Objective:** The focal point of this presentation is a case of tibial osteoma, as well as discussing the challenging surgical treatment and the clinical implications of this pathology. **Material and methods:** The patient is a 13-year-old female, with no significant medical history. She presented to the emergency room department, accusing local pain in the lower left limb during episodes of physical activity and tumefaction of the region. Further examination undertaken with Rx and a CT exam, revealed a benign bone tumor localized in the 1/3 medial left shin. The laboratory results pointed to slight neutropenia and higher values of lymphocytes and monocytes. Oncological consultation was effectuated. During the hospitalization, the patient benefited from the surgical procedure consisting of resection of the tumor through curettage, bone fenestration revival of the medullary canal, harvesting of biopsy materials for the histopathological exam, and fixation and restoration of the bone structure. **Results:** Post-surgery results were on the whole favorable, considering the fact that the patient is part of a young age group and the recovery is challenging. There were observed areas of enostosis at the surgical territory, associated with a homogeneous periosteal reaction. **Conclusions:** In most cases, osteomas can be autolimitatig. For the patients that choose removal of the tumor, curettage is the elective treatment for taking out all the affected tissue. On the other hand, medication such as nonsteroid anti-inflammatory drugs for example Aspirin prove to be effective and help with pain management.

Keywords: Osteoid osteoma, curettage, bone fenestration

CLINICAL OUTCOME OF CRITICAL LOWER LIMB ISCHEMIA AFTER TARDIVE EMBOLECTOMY – CASE REPORT

Ciprian-Gelu Grigoroaea[1], Iulia-Maria Lupu[1], Sabina- Irina Grecu[1], Bogdan-Vasile Gherghel[1], Sergiu Ciurean, Réka Kaller[1]

[1]UMFST Tîrgu Mureş

Background: The critical ischemia of the lower limb is a medical and surgical emergency, the diagnosis of which dictates the prognosis of this condition. More frequently it is produced by the occlusion of an artery in the lower limb. If the blockage is induced progressively, the angiography may detect collateral vessels, therefore causing a chronic syndrome, unlike the acute syndrome, suddenly occurred, in which the collateral vessels won't develop. The treatment management of an acute on chronic situation is always difficult, in these cases the clinical status of the patient decides the outcome. **Objective:** The aim of this study is to present a case of a 68 years old patient with subacute/ critical lower limb ischemia (more than 6 hours) to whom after thrombolysis, a direct thrombectomy was successfully performed. **Material and methods:** We present a 68 years old patient, admitted in the cardiology clinic with subacute/ critical limb ischemia, known with diabetes mellitus, peripheral arterial disease, hypertension, with an onset of symptoms approximately 1 month before. The angiography made by the cardiologist detected the occlusion of the superficial and deep femoral arteries, alongside the developing of collateral arteries. Even though the patient received a thrombolytic treatment, the thrombi were very massive, therefore the occlusion remained still. **Results:** Despite the tardive occlusion of the femoral artery, an open surgical thrombectomy with Fogarty catheter was successfully performed, without the development of a compartment syndrome, and the patient was discharged in two weeks. The decision of a surgical treatment was made considering the clinical condition of the patient, which has been improved temporarily after the thrombolysis. **Conclusions:** A subacute ischemia, older than 6 hours can be successfully revascularized when the clinical status of the limb allows it. A tardive critical limb ischemia can be successfully treated if we have an acute on chronic situation.

Keywords: ischemia, occlusion, thrombolysis, thrombectomy

EXTENDED KARAPANDZIC AND BERNARD BURROWS FLAPS TECHNIQUE FOR RECONSTRUCTION OF LOWER LIP AND CORNER OF THE MOUTH AFTER CANCER EXCISION

Ciubotariu Vanessa-Rafaela[1], Mara Cozlac[1], Bianca -Andreea Nechifor[1], Bogdan Iosip[1]

[1]UMF Gr. T. Popa Iaşi

Background: The squamous cell carcinoma is the most frequent malignant neoplasm of the lips, affecting mostly the lower lip (>90%), especially due to a higher exposure to UV radiations. **Objective:** This paper intends to present a case of an aggressive carcinoma of the lip, previously refused in three hospitals, the patient also having multiple personal medical diagnoses antecedents. **Material and methods:** A 79-year old male patient, known with: arterial hypertension, cardiac insufficiency, dissecting aortic aneurysm, stroke currently under treatment with anticoagulant, who arrives to the clinics of esthetic and reconstructive surgery having a formation in evolution for 9 months at the level of the lower lip and of the right oral commissure. The excisional biopsy revealed a squamous cell carcinoma. The tumor was infiltrated deeply into the level of the muscular plan, the depth of the invasion being of 7mm. Subsequently, it has been opted out for a surgical treatment, mainly an excision of the lower lip and of the right oral commissure, i.e. extended Karapandzic and Bernard Burrows flaps technique for reconstruction of lower lip and corner of the mouth. The biggest advantage of the Karapandzic flap being the possibility to preserve both the mobility and the sensitivity of the lower lip, as well as the oral continence, still with a probability to develop microstomia, which also occurred in our case. **Results:** The patient had a favorable evolution after the surgery, making daily stretching exercises. As far as particularities are concerned, this was a difficult case, the tumor being a very extended one, to which there were added his important associated comorbidities and his advanced age. **Conclusions:** The reconstruction procedure of the lips is a real challenge for the plastic surgeon as he has to balance both the esthetic aspect of the lips, as well as to preserve an adequate function of the oral sphincter.

Keywords: Karapandzic flap, lower lip, aggressive carcinoma, reconstruction

PSEUDARTHROSIS AND INTRAMEDULLARY NAIL BREAKING IN THE FEMORAL SUBTROCHANTERIC AREA – A CASE REPORT

Dora Denisa Avram[1], Mehno Simona-Andreea, Sergiu Vasile Bugnariu[1], Maria Baldea[1], Adrian Ivănescu[1]

[1]UMFST Tîrgu Mureş

Background: Subtrochanteric femur fractures are fractures of the proximal femur that occur within 5 cm of the lesser trochanter. It is an uncommon injury in orthopedics. The incidence has been estimated to be approximately 15 □□□ per 100,000 individuals. The fracture can occur in both young and elderly patients after both high- and low-energy mechanisms of injury. Risk factors include patients undergoing treatment of osteoporosis with bisphosphonates and chronic diseases such as diabetes mellitus. Even with modern implants, the complication rates in the treatment of subtrochanteric fractures remain high. The most frequent complications are infection, pseudarthrosis, vicious consolidation, and osteosynthesis failure. **Objective:** The aim is to report a subtrochanteric proximal femur fracture complicated with pseudarthrosis and peri-implant fracture in a patient with high-risk factors. **Material and methods:** A 74-year old woman with morbid obesity and insulin-dependent type 2 diabetes, reported to the hospital with acute pain in the left hip, functional impotence, and swelling after 6 months from femoral subtrochanteric fracture surgery with intramedullary fixation. The subtrochanteric region of the femur is subjected to several deforming forces due to its muscular insertions and it has a more precarious vascularization which makes the consolidation of the fractures difficult. **Results:** Radiography showed left subtrochanteric pseudoarthrosis and peri-implant fracture with remaining osteosynthesis material. The surgery consisted of extraction of osteosynthesis material, the fracture was stabilized with a dynamic condylar screw (DCS) inserted using a minimally invasive percutaneous plate osteosynthesis technique. After that lavage, suturing were performed and the wound was covered with a sterile dressing. The postoperative evolution is slowly favorable. **Conclusions:** Due to the anatomical peculiarity and with several risk factors, the treatment of subtrochanteric fractures is a great challenge because of the osteosynthesis difficulties and the frequent complications.

Keywords: Subtrochanteric fractures, Pseudarthrosis, Surgery

INCIDENTALLY DISCOVERED BRAIN TUMOR IN A POLYTRAUMATIZED YOUNG PATIENT

Rus Iulia-Maria[1], Florin Leaț-Savin, Antuza Leaț-Savin, Andrei Farcaș, Horațiu Chițac, Florin Leaț-Savin[2]

[1]UMFST Tîrgu Mureş

[2]Another University

Background: Originating from well differentiated glial cells, oligodendroglioma is a slow growing tumor, usually found in its typical locations as the frontal and temporal lobes of the cerebral hemispheres. **Objective:** The purpose of this study is to spotlight the disclosure of a slow-evolution brain tumor, accidentally discovered in a polytraumatized patient. **Material and methods:** A 20-year-old male patient presented at the ER with acute medium closed craniocerebral trauma inflicted by a high-speed car crash. The convenience of the accident revealed in the patient's case history two undervalued epileptic seizures, which turned out to be specific indicators of a possible brain tumor suspicion. Subsequently, advanced radiological studies were performed. CT scanning revealed no signs of recent intra-axial hemorrhage, but the imaging aspects exposed fractures through the sphenoid bone, as well as a right anterior temporal subdural and epidural hematoma of 4 mm thickness. Furthermore, CT imaging highlighted a right intra-axial proliferative structure, characterized by multiple calcified densities, raising a high suspicion of a tumour formation. The imagistic study completed by MRI contrast also accentuated the tumour character of the lesion. Neurological surgery intervention was restrained until hemorrhagic collection resorptions, thereafter to be implemented the total tumor ablation as an effective treatment for the patient. Excisional biopsy of the tumour tissue was performed for histopathological examination. **Results:** Histopathology reports as well as immunohistochemical markers confirmed the final diagnosis of grade II OMS oligodendroglioma with features of anaplasia grade III. The postoperative evolution completed by radiotherapy and chemotherapy as an adjuvant therapy was confirmed to be a favorable one for the patient. **Conclusions:** As seen in this case, the traumatic accident proved to be a great chance for our young patient's life by the fact that it led to an early discovery of the oligodendroglioma diagnosis, which would have had a worse prognosis otherwise.

Keywords: oligodendroglioma, polytrauma, hematoma, anaplasia

THE IMPACT OF THE COVID-19 PANDEMIC IN THORACO-ABDOMINAL TRAUMA PATHOLOGY TREATED IN EMERGENCY

Bianca-Maria Romeghea[1], Calin Molnar[1], Paul Cristian Russu[1]

[1]UMFST Tîrgu Mureş

Background: Polytrauma represent the most complex cases of traumatic pathology. It is defined by the association of several traumatic injuries and lesion location involving a vital risk for the patient. The etiology of injuries includes: road traffic accidents, work accidents, self-inflicted and hetero-aggression, domestic accidents, recreational or sports accidents. The treatment of trauma patients can be surgical or non-surgical, depending on the severity of the injury. **Objective:** The aim of this report is to evaluate the differences between traumatic pathology treated in 2019 compared to 2020 and see if the global pandemic and related restrictions had an effect upon the number of cases and the severity of the injuries. **Material and methods:** We performed a retrospective observational study that included 144 patients admitted to Surgery I Department of the Emergency County Clinical Hospital from Târgu Mureș, between March 2019 and March 2021. Besides the demographic parameters related to patients, have been evaluated: the diagnostic according to the type and the mechanism of trauma, associated diagnostics, surgical treatment and evolution. All data were organized in an Excel database and were statistically analyzed. **Results:** We separated the patients into two groups: the first group represented by 97 patients (67%) admitted and treated for trauma pathology before COVID-19 pandemic and 47 cases (33%) treated during the pandemic state. In the first group the number of chest injuries was predominant (58%) and most patients were men (74%), between 18 and 95 years of age. In the second group, the majority were chest injuries and thoraco-abdominal injuries (76%). In both groups the non-surgical treatment was predominant (for almost 60% of cases). **Conclusions:** The number of cases admitted and treated for traumatic pathology was declining during the COVID-19 pandemic. The need for surgical treatment of traumatic injuries has not changed between the two years.

Keywords: COVID-19 pandemic, traumatic pathology, thoracic trauma, abdominal trauma

HISTOPATHOLOGICAL RESULTS AFTER LAPAROSCOPIC SLEEVE GASTRECTOMY IN OBESE PATIENTS FROM A SINGLE SURGICAL DEPARTMENT

Delia Liana Rachiș[1], Ioana Julean, Andreea-Cătălina Munteanu[1], Elena Rîșca, Roș Hannelore Doris, Rareș Georgescu[1], Flavius Mocian[1]

[1]UMFST Tîrgu Mureş

Background: Laparoscopic sleeve gastrectomy is nowadays an established bariatric procedure and is the most commonly performed bariatric surgery worldwide. Most studies explore the weight loss process, resolution of obesity-related comorbidities, and postoperative complications after sleeve gastrectomy. Despite being the only procedure that allows for pathological examination from the resected specimens, only several studies describe the histopathological results encountered in gastric specimens resulted after sleeve gastrectomy. **Objective:** Therefore, the aim of this research was to describe the most common histopathological results that we found after sleeve gastrectomy among obese patients from a single surgical department **Material and methods:** A retrospective study of obese patients who underwent laparoscopic sleeve gastrectomy between January 2009 and December 2018 in Surgical Department of Clinical County Hospital Mures, was conducted. Risk factors as age, BMI, and gender were assessed in relation to histopathological results of resected gastric specimens. **Results:** A total of 209 obese patients who underwent laparoscopic sleeve gastrectomy were included. Of these, 57% were female. Mean age was 42.58 ± 10.85 years, and mean BMI was 45.61 ± 7.46 kg/m2. Normal gastric histology was found in 76% of the cases, followed by active chronic gastritis in 14%, and inactive chronic gastritis in 10% of the cases, respectively. A statistically significant association was observed between BMI values and histopathological results (p=0.021). On contrary, there was no significant association between age, gender and histopathological results. **Conclusions:** Increased BMI values represent a risk factor for the incidence of the active chronic gastritis amog obese patients. In terms of age and gender, there was not found a significant association betweem these and histopathological results.

Keywords: Obesity, laparoscopic sleeve gastrectomy, histopathological results, active chronic gastritis

MULTIORGAN RESECTIONS IN THE PATHOLOGY OF OVARIAN CANCER

Paul Roman[1], Mihai-Emil Capilna[1]

[1]UMFST Tîrgu Mureş

Background: Ovarian cancer is the seventh most common cancer in women, and third most prevalent gynecological cancer following cervical and uterine cancers, being responsible for more deaths than all of the other gynecological malignancies combined. **Objective:** The objective of this paper is to perform a statistical analysis on the type of visceral resection in patients with ovarian cancer and establish that cytoreductive surgery is an optimal method of treatment in this pathology. **Material and methods:** We have made a retrospective study on a group of 34 patients from the Obstetrics and Gynecology ward in Targu Mures County Hospital, who were operated in the period from the 1st of May 2018 until the 1st of January 2021. The women presented in all four International Federation of Gynecology and Obstetrics (FIGO) stages of the disease, and had cytoreductive surgery as a curative procedure. **Results:** The age of the patients was 58.55±11.54. The surgical procedure elected for all of our patients is total hysterectomy with bilateral adnexectomy. This was most often associated with: omentectomy (88.23%), pelvic peritonectomy (50%), appendectomy (44.11%), multiple tumorectomy (26.47%) and pelvic and paraaortic lymphadenectomy (20.58%). Of the selected group one person was reoperated for a subocclusive syndrome 20 days after the intervention, and one had a right hypochondrium relapse one year after multiorgan resections. **Conclusions:** Cytoreductive surgery in ovarian cancer is a viable technique with reduced complications, in the presence of a well trained surgeon-anesthesiologist team. It should only be performed in centers with accreditation for the procedure in order to increase the survival rate of the patients.

Keywords: ovarian, cancer, surgery, resections

SURGICAL TREATMENT OF ABDOMINAL NEOPLASMS DURING THE COVID-19 PERIOD

Rebeka Varga[1], Călin Molnar[1], Cristian Paul Russu[1]

[1]UMFST Tîrgu Mureş

Background: The SARS-COV-2 pandemic had a strong impact on the global health from the outset. More than a year after this crisis began, the impact on cancer patients is resounding. Late detection and diagnosis, delayed surgery, discontinuation or abandonment of therapy may lead to an increase in deaths in the coming years. **Objective:** The aim of this paper is to evaluate patients with abdominal cancer, the different techniques used for treatment, in terms of surgical indications and the impact of the pandemic on the evolution and prognosis of these patients. **Material and methods:** We used a retrospective observational study that included a number of 292 patients treated in the Surgery I Department of the Emergency County Clinical Hospital in Târgu Mureş, between March 2019 and February 2021. We separated the patients in two groups corresponding to COVID-19 period (between March 2020 and February 2021) and the other, treated one year before. Besides patient related demographic parameters, the diagnostic according to cancer location, complications, surgical treatment, postoperative evolution, morbidity, mortality and length of hospital stay were recorded. All data were organized in an Excel database and statistically analyzed. **Results:** In the studied groups, the majority were men (62%), between 30 and 88 years of age. Colon and colorectal cancers was the most frequent location both in women (67%) and men (59%), followed by gastric cancers. Adenocarcinomas represented 60%, with a majority of G2 histopathological grade (43%). Hepatic metastases were present in 13% of all cases. Postoperative mortality was statistically significantly higher in the COVID-19 period patients group. **Conclusions:** Considering the health restrictions caused by the pandemic, the number of cancer patients surgically treated has not decreased significantly. We registered a slight worsening in cancer staging and a statistically significant higher mortality in the COVID-19 patients group.

Keywords: abdominal cancers, cancer treatment, COVID-19 pandemic

BILIARY ATRESIA ASSOCIATED WITH PREDUODENAL PORTAL VEIN, SITUS INVERSUS TOTALIS AND INTESTINAL MALROTATION (A RARE ASSOCIATION)

Adham Sleem[1], Akram Hamad, Andreea Mocanu[2], Tarek Sabra[1], Hussein Ibrahim[1]

[1]Another University

[2]UMFST Tîrgu Mureş

Background: Biliary atresia is a progressive obstructive cholangiopathy of the intra/extrahepatic biliary tree, leading to cholestasis and cirrhosis, fatal if left untreated in the first 2 years of life, with incidence of 1:15000.Situs inversus totalis is a rare condition where the abdominal and thoracic organs are mirror-imaged to midline(incidence of 0.00025%-0.025% of population). **Objective:** Presenting a rare association of 3 congenital anomalies: an infant with BA with prior imaging revealing situs inversus,a preduodenal portal vein and intestinal malrotation diagnosed intraoperatively. **Material and methods:** A 3-month-old-female infant was hospitalized in pediatric surgery unit with jaundice and hyperbilirubinemia, with history of light-colored stool and dark urine shortly after birth. Hepatic panel detected total bilirubin of 7mg/dl, direct bilirubin of 4mg/dl with elevated GGT. Liver biopsy was consistent with BA, Kasai Roux-en-Y hepatoportoenterostomy was recommended. After right subcostal incision, exploring the abdomen,we noticed the intestinal malrotation and PDPV.The portal plate was dissected and the narrowed base of the mesentery,broadened.Construction of Roux limb and hepatoportoenterostomy was performed. **Results:** There were no noticeable complications in the postoperative period, except for low-grade fever controlled with simple analgesics.The bilirubin level dropped from 7 to 5 mg/dL on 5th postoperative day (pod), the patient started oral feeding on 2nd pod and was discharged on 10th pod with 4 mg/dL total bilirubin and 3 mg/dL direct bilirubin.She came to outpatient clinic after 1 month with dramatic improvement and 1.5 mg/dL total bilirubin, now waiting for liver transplantation as Kasai operation is a bridge for definitive management,the transplant. **Conclusions:** In infants with jaundice, pale stools, conjugated hyperbilirubinemia and raised GGT, it's reasonable to perform US and liver biopsy for BA diagnosis.The association of BA with intestinal malrotation and PDPV has been previously reported and is estimated to occur in 5-15% of cases,identifying them is important for hepatoportoenterostomy and during liver transplantation if needed.

Keywords: Biliary atresia, Situs inversus totalis, Preduodenal portal vein-, Intestinal malrotation

POSTER - NON - SURGICAL

NEW TREATMENT APPROACH NEEDED FOR SPONTANEOUS CHRONIC URTICARIA? – A CASE-BASED APPROACH

Patrick Lechsner[1], Maria Antonia Balan[1], Erika-Gyongyi Ban[1], Corina Ureche[1]

[1]UMFST Tîrgu Mureş

Background: Chronic spontaneous urticaria (CSU) is characterized by periods with urticaria lasting longer than 6 weeks. 1% in US and Europe are suffering from CSU at one point in their life. Besides the classic symptomatic approach, monoclonal antibody therapy was approved but underlying causes of CSU are still incompletely understood, often considered idiopathic. More trigger factors are discovered constantly, possibly including viruses. **Objective:** By presenting our case-based approach we want to show that patients' physical sign and symptom status and all paraclinical investigations need to be considered when treating CSU. **Material and methods:** This study is a case-based retrospective evaluation of patients presenting urticaria signs and symptoms, aiming to evaluate etiological factors and eligibility for different therapies. **Results:** We evaluated the status of subjects currently under therapy for CSU but unresponsive. Evaluation protocol was two-branched: We performed literature research about therapeutical approach and failures and based on the guides and algorithms we evaluated our subjects' situation. Based on our results, during standard evaluation, trigger factor and Ig investigations can reveal differential diagnostics; especially if paired with treatment failure. First patient was an 83-year-old male with all signs and symptoms of CSU and extremely high IgE level; second case was a 68-year-old woman with acute pruritus episodes suspected drug side-effect, also therapy unresponsive, and only post-COVID infection markers abnormal. **Conclusions:** Therapeutic CSU approach is based on various medications with strong quality-of-life improvement possibility. But observing that triggers and secondary etiological causes can contribute, special attention should be paid in unresponsive patients and all cases with high levels or discrepancy of different parameters. While MAB treatment proves useful for CSU, it should only be done after careful, wholly patient evaluation and considering possible underlying triggers, e.g. colorectal carcinoma. Considering this, and newly discovered trigger factors, like long-haul COVID-19, a new CSU treatment approach might be needed.

Keywords: CSU, COVID-19, MAB

NEPHROLOGICAL CHALLENGE : DEALING WITH A BARDET-BIEDL SYNDROME

Iulia Elena Mancas[1], Alexandra Ionela Strugariu[1], Andreea-Voichița Slevoacă-Grigore[1], Iuliana Magdalena Stârcea[1]

[1]UMF Gr. T. Popa Iaşi

Background: Bardet-Biedl syndrome(BBS) is an autosomal recessive genetic syndrome. It consists of clinical manifestations divided into primary features of the disease such as obesity, genital abnormalities, renal defects, and secondary features like developmental delay, brachydactyly or syndactyly, ataxia, diabetes mellitus, congenital heart disease. All these characteristics may not be present at birth but can appear in the first two decades of life. **Objective:** We aim to present the interconnection between urogenital abnormalities characteristic for Bardet-Biedl syndrome and the development of renal failure. **Material and methods:** A 16 years old female with a history of vaginal atresia, urogenital sinus with vesicoureteral reflux, bilateral hydronephrosis, polydactyly, obesity, psychomotor retardation is presented for nephrological reassessment. The patient does not accuse any symptoms. The clinical examination reveals overweight, hypertrichosis, brachydactyly, abdominal adipose tissue, and severe mental retardation. Blood tests revealed renal anemia(normochromic normocytic anemia), osteodystrophy (hypocalcemia increased alkaline phosphatase), and the exploration of renal function suggests chronic kidney disease stage IV. A urine test examination suggests an asymptomatic urinary tract infection with Escherichia coli and urine culture predicts its sensibility to antibiotics. Abdominopelvic ultrasonography certifies the presence of a transonic, multilocular, imprecisely delimited mass, which occupies the entire hypogastrium and includes the ovaries. In order to find out the abdominal mass's etiology, the tumor markers are investigated and they are negative. **Results:** The patient receives third-generation cephalosporine for the treatment of the urinary tract infection. In order to preserve the functions of the ovaries, it is concluded that the abdominal mass has no indication for surgical ablation. The patient receives the recommendation of conservatory follow-up of the hypogastrium mass and treatment of anemia and osteodystrophy. **Conclusions:** Bearing all these in mind, it is very important to nephrological reassess the patients known with Bardet Biedl syndrome, because renal failure represents an important cause of morbidity and mortality of these patients.

Keywords: Bardet-Biedl syndrome, renal failure, nephrological reassessment

KIDNEYS: THE COLLATERAL VICTIMS IN SYSTEMIC LUPUS ERYTHEMATOSUS

Iulia Elena Mancas[1], Alexandra Ionela Strugariu[1], Andreea-Voichița Slevoacă-Grigore[1], Iuliana Magdalena Stârcea[1]

[1]UMF Gr. T. Popa Iaşi

Background: Systemic lupus erythematosus (SLE) with onset in childhood is a chronic multisystem autoimmune disease that has a predilection for women. SLE is diagnosed based on the eleven criteria proposed by the Americal College of Rheumatology(ACR): malar rash; discoid rash; photosensitivity; oral ulcers; arthritis; cardiopulmonary pathology; neurological manifestations; renal pathology; cytopenia: anemia, leucopenia, thrombocytopenia; positive antinuclear antibody (ANA) test or other tests for autoimmune disease. **Objective:** The aim of this case report is to emphasize the fundamental importance of renal biopsy in the management of the SLE patient. **Material and methods:** A 12 years old female patient without any medical condition is presented for neurological reassessment and renal biopsy. The patient history reveals, two months ago, a right knee rash that evolved into a psoriasiform rash localized on the superior limbs, inferior right limb, and a facial rash on the cheeks associated with arthralgias. At that moment, the diagnosis of SLE is put on the basis of 4 of 11 criteria suggested by ACR: 1) facial rash, 2) hematology: cytopenia(thrombocytopenia and leucopenia), 3) immunology: hypocomplementemia and positive DNA double-chain antibodies, 4)nephritis: increased urea and creatinine, microscopic hematuria and minimal proteinuria. The SLE treatment is established with corticoids and the psoriasis lesions are treated with methotrexate. Nowadays, after two months of therapy, the patient returns for renal biopsy, because at the first presentation, the kidney's biopsy was not practiced because of the failure to meet the criteria for renal biopsy in SLE. **Results:** The renal biopsy reveals class II of lupus nephritis: mesangial proliferative lupus nephritis. This class of nephritis does not require any specific treatment. **Conclusions:** Renal biopsy on SLE patients is essential because nephritis represents a major cause of mortality and tardive diagnosis of nephritis represents a major risk factor for end-stage renal disease.

Keywords: Systemic lupus erythematosus, renal biopsy, lupus nephritis

CHALLENGES IN THE MANAGEMENT OF COMPLETE ATRIOVENTRICULAR SEPTAL DEFECT IN A 7- MONTHS-OLD GIRL WITH DOWN SYNDROME

Cristina-Ana-Maria Nițu[1], Rusu-Simina Ghiragosian[1], Amalia Făgărășan[1]

[1]UMFST Tîrgu Mureş

Background: Complete atrioventricular septal defect (CAVSD) represents an endocardial cushion defect with a 2% prevalence of all congenital heart diseases, 30% of the defects occur in children with Down syndrome. Clinical presentation is marked by congestive heart failure early in infancy. **Objective:** The aim of this clinical case report is to present the challenges in the management of a complete atrioventricular septal defect and to highlight the pre- and postoperative challenges of the case. **Material and methods:** We present the case of a 7-months-old girl, with Down Syndrome and hypothyroidism (under substitutive treatment), prenatally diagnosed with congenital heart disease, being in our evidence since she was 2 days old with complete atrioventricular septal defect Rastelli type A, patent ductus arteriosus and significant pulmonary hypertension. In the presence of congestive heart failure with feeding difficulties, excessive sweating, tachycardia, tachypnea, respiratory distress, hepatomegaly, poor peripheral blood perfusion, cardiomegaly on chest X-ray, chronic treatment of the ROSS IV with Lisinopril, Bisoprolol and Spironolactone was initiated. At 6 month was performed the complete surgical correction - closure of the ventricular and atrial septal defect and suturing of the cleft mitral valve, in extracorporeal circulation. **Results:** In the postoperative period there were complications such as: severe biventricular contractile dysfunction, pericardial and pleural efussions, hypopotassemia, lobar pneumonia, anemia and sternal dehiscence. The echocardiographic evaluation revealed important tricuspidian and mitral regurgitation for which the treatment for heart failure was mentained, with good evolution. The patient was discharged at 40 days after surgery. **Conclusions:** Early diagnosis of CAVSD is important in order to institute supportive, appropriate medical treatment and to plan surgical intervention. In the current era the operative mortality is low with a good long term outcome for most patients, with or without Down's syndrome.

Keywords: Down Syndrome, complete atrioventricular septal defect, heart failure

PEDIATRIC POPULATION'S ACCESS TO MEDICAL CARE IN THE CONTEXT OF COVID-19 PANDEMIC

Laura Motiu[1], Réka Borka-Balás[1]

[1]UMFST Tîrgu Mureş

Background: Even from the beginning of the COVID-19 pandemic, health care authorities have implemented measures for minimizing the risk of infection for patients and medical personnel. Even though COVID-19 by itself doesn't represent a serious threat for the pediatric population, the emergency measures in place could negatively impact the caring for the pediatric patients and the general well being of children. **Objective:** The purpose of this study is to analyze how children between the ages 0-18 received medical care, the quality of afore mentioned medical care and the areas were difficulties were encountered. **Material and methods:** In order to evaluate pediatric population's access to medical services during the COVID-19 pandemic, a cross sectional, prospective study was carried out, by using an online questionnaire comprising of 28 questions, that was subsequently completed by parents. Data was stored in a Microsoft Excel database and statistically analyzed with the same program. **Results:** Out of 458 subjects, 329 (71,83%) said they needed medical care or checkups for their children. A number of 446 (97,38%) of the parents said they had access to pediatric care, of which 312 (69,96%) were from urban, while 134 (30,04%) from rural areas. Out of the total number of subjects, 19,71% said, they had a preplanned medical appointment, that they postponed/cancelled because of fear of COVID-19 infection; 10,84% of these parents were from Mureş county. **Conclusions:** During the COVID-19 pandemic, most of the parents had the possibility to receive medical care for their children for acute illnesses, but the delay or cancellation was more frequent for follow up medical appointments due to fear of contracting the new virus. In rural area access to medical care was less easy.

Keywords: pediatric population, COVID-19, medical care

THE ORAL COLONIZATION WITH CANDIDA SPECIES IN PATIENTS WITH DEPRESSION

Paula Wiederanders[1], Buta Jianu Flavia, Irina-Bianca Kosovski, Anca Mare, Adrian Man, Cristina Nicoleta Ciurea[1]

[1]UMFST Tîrgu Mureş

Background: Depression is a mental disorder triggered by a deficiency of serotonin and norepinephrine affecting millions of people worldwide. Previous studies revealed a potential association between the *Candida* spp. colonization and mental disorders. **Objective:** The study aims at evaluating the oral colonization with *Candida* spp. in patients with diagnosed depression. **Material and methods:** Thirty-four patients with diagnosed depression were included in the study. The Hamilton Depression Scale was used to assess the severity of depression and divide the depression state into mild (score of 8-17), moderate (score of 18-25), and severe (score over 25). From each patient, a mouth swab was collected and cultured on Sabouraud agar for 48 hours. *Candida* spp. were identified by culturing on selective chromogenic agar. The patients were grouped in gender and age categories (<40 years old, 41-60 years old, and 61-85 years old). The data were analysed using descriptive statistics. **Results:** Of all patients included in the study, 13(38.2%) had severe depression, 19(55.9%) had moderate depression and 2(5.9%) had mild depression. No patient with mild depression had positive *Candida* spp. cultures, while 13(68.42%) patients with moderate depression and 5(38.46%) patients with severe depression were colonized with *Candida* spp. Of all patients, 18(52.9%) are colonized with *Candida* spp., of which 9(50.0%) with *Candida albicans*, 5(27.8%) with *non-albicans Candida* species, and 4(22.2%) with both *C. albicans* and *non-albicans Candida* species. The prevalence of *Candida* colonisations in males is 9(75.0%), compared to 9(40.9%) in females. Positive cultures were present in 4(50.0%) of the patients under 40 years old, 8(57.1%) patients between 41-60 years old, and 5(50.0%) patients in the 61-85 years old group. **Conclusions:** Patients with depression have a high rate of oral colonization with *Candida* spp. and males are more often affected. *C. albicans* is more frequently a part of the oral mycobiome of depressed patients than *non-albicans Candida* species.

Keywords: Candida spp., depression, Hamilton Depression Scale

DE NOVO NF1 GENE DELETION DETECTED BY USING MULTIPLEX LIGATION-DEPENDENT PROBE AMPLIFICATION

Irina Ioana Iurian[1], Claudia Bănescu[1], Florin Tripon[1]

[1]UMFST Tîrgu Mureş

Background: Type 1 Neurofibromatosis, also called von Recklinghausen's disease is an autosomal dominant disorder caused by mutations in the NF1 gene. It can present in childhood with café-au-lait spots, axillary freckles, Lisch nodules of the iris, skeletal dysplasia, learning difficulties, and later in life with neurofibromas. **Objective:** In the following case we present a child that was brought to the genetics department because of abnormal skin pigmentation. **Material and methods:** The 7-year-old patient presented with negative family history, nineteen café-au-lait spots with maximal diameter of more than 5 mm, axillary and inguinal freckles, normal retinal exam and cranial MRI. Multiplex ligation-dependent probe amplification (MLPA) technique was used for the analysis of deletions in NF1 gene by using SALSA MLPA KIT NF1 mix2, code P082, with probes for the following exons: 1, 3, 5, 8-10, 12, 14-16, 19, 20, 22, 25, 27, 30, 31, 33, 34, 36, 38, 40, 41, 43-46, 48, 51, 53-56, and introns: 1 and 36. **Results:** There was found a heterozygote deletion extended at the level of 17q11.2, NF1 gene, for all the analyzed exons, confirming type 1 Neurofibromatosis. The parents were tested regarding the deletion of NF1 gene and no anomalies were detected. **Conclusions:** The authors diagnosed a child with a de novo mutation of NF1 gene, in this case the heterozygote deletion affecting the entire NF1 gene.

Keywords: Neurofibromatosis, NF1, MLPA, café-au-lait spots

INCIDENTALLY FOUND CEREBELLAR ARTERIOVENOUS MALFORMATION: A DESCRIPTION OF TWO CASES

Irina Ioana Iurian[1], Maria-Andreea Micu[1], Lidia Iordache[1], Teodora Iordache, Andrei Măcărescu[1], Laura Chinezu[1]

[1]UMFST Tîrgu Mureş

Background: Cerebral arteriovenous malformations (AVM) occur in 0.5% to 1% of the population and are the most clinically reported type of cerebral vascular malformation due to their tendency to hemorrhage, but they are only the third regarding the postmortem studies. Cerebellar AVM comprise less than 15% of all brain AVMs and patients with cerebellar AVMs are significantly more likely to present with hemorrhage than patients with cerebral AVMs. **Objective:** The authors present two incidentally found cases of cerebellar AVMs. **Material and methods:** Both autopsies were performed at the Institute of Forensic Medicine, Târgu Mureș. **Results:** The cerebellar AVMs were incidental lesions found at autopsies in both of the cases. The first case is about a 50-year-old man that suddenly died due to a viral myocarditis and the second case is about a 79-year-old man that suddenly died due to a bronchopneumonia. Microscopically, both cerebellar AVMs consisted of arteries, veins and abnormal vessels with thick or thin walls. The caliber and mural thickness of vessels varied markedly, with areas of hyalinization. In the first case of AVM, the vessels extended from the cerebellar parenchyma into the subarachnoid space. In the second case, the vascular channels were embedded within the parenchyma, the surrounding cerebellar regions consisted of reactive changes, including astrocytic gliosis and old hemorrhage with hemosiderin material. **Conclusions:** Although both AVMs were incidentally found at autopsies, cerebral AVMs represent the most common form of vascular malformation encountered among surgical specimens in most neurosurgical centers. We must be aware of the existence of cerebellar AVMs, taking into account that they have a higher risk of bleeding comparing to cerebral AVMs, especially in those cases with a subarachnoid component.

Keywords: arteriovenous malformations, incidentally found AVM, cerebellar

FLUCTUATING HYPERTENSION: A CASE OF SOMATIZATION OF ANXIETY

Angelina Hamatdinova[1], Fiona Lehmann[1], Felix Gilleßen[1], Erika Bán[1], Atilla Brassai[1]

[1]UMFST Tîrgu Mureş

Background: Somatization refers to a phenomenon in which patients develop physical symptoms in response to a mental disorder or psychological stress. Physical symptoms appear without an identifiable organic cause and can

lead to severe impairment of patient's everyday life. Usually, patients focus on their physical complaints in the first place and miss to seek advice in psychiatric care, leading to an unnecessary delay of appropriate treatment. **Objective:** The aim of this paper is to draw attention to a case of an unusual approach of hypertension treatment with antidepressants. **Material and methods:** Given the patient's file records we present the medical case of a 43-year-old woman suffering from dizziness, vertigo, nausea, headaches, and fluctuating blood pressure, oscillating between 180/100 mmHg and 120/80 mmHg. She was treated unsuccessfully for high blood pressure and finally referred to the psychiatry department. **Results:** In the past three years the patient underwent different therapy approaches and consulting several medical specialists. Cardiology consultation aimed medical treatment of hypertension with different pharmacological approaches of indapamide, enalapril and nebivolol. Under this treatment her blood pressure reached a critical low value so that the cardiologist decided to discontinue the pharmacological treatment due to this induced hypotension. Endocrinology screening excluded thyroid disorders and pheochromocytoma as possible cause. Furthermore, the patient developed intense headaches and insomnia that disabled her professional performance. Psychiatric evaluation revealed an anxiety disorder followed by a prescription of venlafaxine (SNRI) and trazodone (atypical antidepressant) in gradually increased doses. Being only treated with this combination of antidepressants, follow-ups showed the patient free of physical symptoms, and able to continue going to work. **Conclusions:** Medical treatment of the previous overlooked anxiety as an underlying disease resolved the patient's associated somatic symptoms. This positive outcome highlights the importance of early psychiatric counselling for patients that are not successfully treated by approaches, primarily focusing on physical symptoms.

Keywords: Anxiety, Hypertension, Antidepressants, Somatization

---

A PARTICULAR CASE OF GRAVES-BASEDOW DISEASE PRESENTED AS HYPOTHYROIDISM

Adina-Elena Ursache[1], Diana Vladea[1], Diana Andreea Vascul[1], Ovidiu-Andi Zaharie[1], Narcis Ungureanu[1], Cristina Corina Pop Radu[1]

[1]UMFST Tîrgu Mureş

Background: Since the late fifties, Graves-Basedow disease (GBd) has been considered to be an autoimmune thyroid disorder where the presence of thyroid-stimulating antibodies (TSAb) may lead to thyrotoxicosis, ophthalmopathy, goiter, and dermopathy. In addition to these stimulating antibodies, GBd may be rarely characterized by a group of TSH-blocking antibodies (TBAb) that cause hypothyroidism. **Objective:** Our objective is to emphasize hypothyroidism under TBAb's mechanism of action in a case of Graves-Basedow disease. **Material and methods:** This case report presents a 59-year old woman diagnosed in 2016 with hypothyroidism kept under control by treatment with Levothyroxin, which presented diplopia, vertigo, frontal headache, and hyperlacrimation when admitted to the Ophthalmology department in February 2019. Due to her symptomatology, the patient had been redirected to the Endocrinology Department. In order to identify the patient's current condition, some clinical and paraclinical tests were performed: thyroid ultrasound, Hertel exophthalmometry, DXA test, and a hormonal imbalance test by dosing TSH, fT4, and TBAb's levels. **Results:** The results highlighted an increased value for both TSH (24 mUI/L) and TSBAb (1,98 UI/L), a low level of fT4 (0,56 ng/dL), and an active endocrine ophthalmopathy suggested by diplopia (class IV NOSPECS) and specific ocular diameters of 15 mm for the right eye and 16 mm for the left one. Furthermore, the DXA test revealed severe osteoporosis, while the ultrasound exam of the thyroid gland showed a particular aspect for an autoimmune chronic disorder. **Conclusions:** Bearing in mind that spontaneously oscillating TSH receptor antibodies are infrequent, now it is highly recognized that both TSH receptor stimulating and blocking antibodies can be produced simultaneously in the same patient; the alternating sequence of hyper/hypothyroidism may depend on the balance between stimulating and blocking antibodies leading to this paradoxical presentation of a commonly straight-forward disease.

Keywords: Graves-Basedow disease, TBAb, hypothyroidism

MULTIPLE LINES OF TREATMENT IN STAGE IV NON-SMALL-CELL LUNG CANCER – BENEFITS, TOXICITY AND OTHER CONSIDERATIONS

Adelina Iacob[1], Laura Florentina Rebegea[2]

[1]UMFST Tîrgu Mureş
[2]Universitatea Dunarea de Jos Galaţi

Background: Associated with particularly high mortality, bronchopulmonary adenocarcinoma is a NSCLC and the most common type of lung cancer. At stage IV, patients can only benefit from palliative care, which is complex and associated with high toxicity itself. **Objective:** The aim of this paper is to present the treatment plan selected for a 71-year-old patient who was diagnosed with poorly differentiated bronchopulmonary adenocarcinoma (T2N3M1) in 2017. We will highlight the effect it has had on the progression of the disease and analyse the side effects that have ensued and how they were counteracted. **Material and methods:** Access to the patient's multidisciplinary medical file was provided, including medical imaging, along with observations from the board of doctors overseeing his care. **Results:** The patient, an ex-smoker, presented with right scapular pain and intermittent dyspnoea. PET-CT showed a 44/57/63 mm mass with a necrotic core in the superior lobe of his right lung, apical and mediastinal pleural invasion, local adenopathies and bone metastases. He underwent right antero-lateral thoracotomy, and chemotherapy with platinum derivatives (*Cisplatin*, *Carboplatin*) and *Gemcitabin* was initiated. The patient is ALK negative, so multiple rounds of immunotherapy (*Nivolumab*) followed, along with another line of chemotherapy (*Docetaxel*) and radiotherapy.Regular imaging has shown the disease has had periods of progression (which is to be expected when administering immunotherapy), as well as ones of stagnation and even regression. The side effects experienced have ranged from fatigue, nausea, anaemia and leukopenia to cutaneous eruptions, urine retention and hypothyroidism, which were treated pharmacologically. **Conclusions:** Stage IV bronchopulmonary adenocarcinoma normally leaves hardly any room from optimism. Nevertheless, in this case, excellent results have been achieved through multiple lines of treatment, including immunotherapy, which have led to long-term survival and good quality of life (grade 0 ECOG).

Keywords: NSCLC, immunotherapy, bronchopulmonary adenocarcinoma, long-term survival

FTD: THE DISGUISED DISEASE

Evelyn - Ágnes Molnár[1], Ludovic-Alexandru Szanto[1], Giancarlo Logroscino[2]

[1]UMFST Tîrgu Mureş
[2]Department of Clinical Research in Neurology, Center for Neurodegenerative Diseases and the Ageing Brain; University of Bari “Aldo Moro”, “Pia Fond. Card. G. Panico” - Tricase (LE), Italy

Background: Frontotemporal Dementia (FTD) is the second most common amongst early-onset dementias. However, it is often misdiagnosed, due to its clinical picture heterogeneity overlapping with Primary Psychiatric Disorders', or other Neurodegenerative Diseases. The risk of undiagnosis increases with the progression of the disease as the symptoms of its subtype variants can co-occur with one other. **Objective:** The aim of our study was to contour the general knowledge among healthcare students and professionals regarding dementias, focusing on FTD. With this presentation, we would like to raise awareness about the ambiguous clinical presentations of Behavioral variant FTD (bvFTD) and Primary Progressive Aphasia (PPA). **Material and methods:** A survey with 50 questions was conducted by us online using the Google Forms platform. The questions were based on the latest international consensus diagnostic criteria of bvFTD (Rascovsky et al., 2011), and the current criteria regarding the distinction of PPA variants (Gorno-Tempini et al., 2011). The inclusion criteria of the respondents for this paper were the following: student at the Faculty of Medicine; studied about dementia in the frame of Neurology and/or Psychiatry lessons at any Romanian University, or at the University of Bari "Aldo Moro", Italy. For the statistics, we used: Microsoft®Excel; GraphPad QuickCalcs: Chi-squared test. **Results:** The total number of respondants=168, from which 69 persons fulfilled the inclusion criteria for this paper. 31.03 % of the students who studied in Romania (n=58) stated that they have a certain knowledge about bvFTD, while 90.09 % of students studying in Bari (n=11) declared the same, $p<0.0002$. Concerning the PPA, RO students gave a positive answer in 31.03%; the results for participants from Bari reported knowledge in 72.72% of cases, $p<0.0089$. **Conclusions:** FTD-education would be in high demand among our generation in Romania. Our belief is that we are responsible for the future outcomes regarding the success of diagnosing FTD in our country.

Keywords: bvFTD, PPA, survey, awareness

A CROSS-SECTIONAL ASSESSMENT OF PHYSICAL ACTIVITY AND LEISURE MOTIVATION SCALE AMONG MEDICAL STUDENTS IN TARGU MURES

Ribiana-Iolanda Bălaș[1], Flaviu Alexandru Dichiu[1], Cătălina-Maria Bărcuțean[1], Valentin Nădășan[1]

[1]UMFST Tîrgu Mureş

Background: Physical activity has a substantial impact on the health of the population of all ages and especially young people. Medical students have the opportunity to learn about the benefits of exercise and sports but for various subjective and objective reasons, their level of activity seems to be inadequate. **Objective:** The goal of this study was to assess the motivations for practicing physical activities by the first- and second-year students from the George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Târgu Mureș (UMPhST). **Material and methods:** The cross-sectional observational study included a sample of first- and second-year students from UMPhST. The Physical Activity and Leisure Motivation Scale (PALMS) questionnaire, consisting of 40 questions with 5-level Likert pre-set answers, was administered online. The general PALMS score and the scores of the 8 subscales were calculated according to the specific methodology. The associations between scores and socio-demographic characteristics were tested using the student-t test or ANOVA, with the SPSS v.22 application. The statistical significance threshold was set at 0.05. **Results:** The study sample included 315 students (73.5% girls, 26.5% boys) from all the faculties and study programs. The average PALMS score was 134.9. The motivations with the highest scores were: maintaining physical condition (21.4 points), appearance (19.7 points), psychological condition (19.6 points), enjoyment (18.5 points) and mastery (17.5 points). No statistically significant differences were observed regarding sex, year of study, BMI, presence or absence of chronic diseases ($p > 0.05$). Respondents who practiced performance sports had a significantly higher PALMS score (143.0 vs 134.2; $p = 0.03$). **Conclusions:** The participants had a moderate level of PALMS score, the highest motivations being represented by physical condition, appearance, psychological condition, enjoyment and mastery. The only statistically significant difference was observed in respondents who practiced performance sports.

Keywords: physical activity, sports, health, motivation

CHILDHOOD OBESITY AND COVID-19 – TWO CURRENT LIFE-THREATENING PANDEMICS

Mihaela Măican[1], Mihaela Nicoleta Mihalache[1], Davide Călin Mereu[1], Andrei Manea[1], Andreea Mocanu[1], Lorena-Elena Meliț[1], Cristina Oana Mărginean[1]

[1]UMFST Tîrgu Mureş

Background: Pediatric obesity is the most frequent nutritional disorder among children and teenagers worldwide, determined by dietary habits, genetic susceptibility, environmental factors, and lifestyle. Pediatric inflammatory multisystem syndrome (PIMS) associated to COVID represents an immunological condition caused by an overproduction of cytokines and results in severe forms of COVID-19 resembling Kawasaki disease. **Objective:** Our objective was to emphasize the impact of pediatric obesity on children with COVID-19. **Material and methods:** A 9-year-old male was admitted in the pediatric clinic for fever (maximum 39° C), loss of appetite, fatigability with the onset approximately 6 days before the admission. The anamnesis pointed out that his mother was diagnosed with COVID-19 one month ago, with no obvious symptoms in child at that time. **Results:** The clinical exam revealed influenced general status, palpebral edema, non-exudative conjunctivitis, and abdominal tenderness, weight 45 kg. The laboratory tests showed anemia, lymphopenia, elevated inflammatory biomarkers, NT-proBNP, D-dimers, and troponin, as well as higher liver enzymes and lactate dehydrogenase levels and hypoalbuminemia. The thoracic radiography, abdominal ultrasound and echocardiography did not reveal any abnormalities. The patient tested positive for RT-PCR SARS-CoV-2 infection, and it was established the diagnosis of pediatric inflammatory multisystem syndrome associated to COVID-19 (PIMS). There was no microbiological evidence of other bacterial or viral infection. The serological test for SARS-CoV-2 infection was also positive. **Conclusions:** Our case emphasizes that children with obesity express a systemic inflammatory response involved in a wide-spectrum of well-documented life-threatening complications.

Keywords: Obesity, Child, COVID-19, Pediatric Inflammatory Multisystem Syndrome

MANAGEMENT OF A CROHN'S DISEASE PATIENT WITH UNCOMMON CLINICAL SYMPTOMS - CASE PRESENTATION

Cristina-Alexandra Raț[1], Claudiu-Ionuț Sântean[1], Oana Bianca Popovici[1], Dumitru Catalin Sarbu[1], Thanas Shituni[1], Crina Fofiu[1], Daniela Dobru[1]

[1]UMFST Tîrgu Mureş

Background: Crohn's disease is an autoimmune pathology which affects mainly the small intestine, the characteristic lesion being the aphthous ulceration which extends transmural, giving the aspect of "paving stones" to the mucosa. The classic triad of symptoms includes: diarrhea, periumbilical pain and weight loss. **Objective:** Our goal is to present the correlation between patient's symptoms and specific paraclinical investigations, used in order to put the correct diagnosis and exclude other pathologies with similar clinical picture. **Material and methods:** We present the case of a 63-years-old woman with Crohn's disease, with multiple relapses in the past, who also went under a right hemicolectomy procedure due to the extension of the inflammatory process. At the moment, the patient is going under maximal biological therapy with Adalimumab. The patient was admitted to the emergency room presenting intense abdominal pain, nausea, vomiting and jaundice. The abdominal ultrasound revealed a reflective image with posterior shadow cone in the main bile duct, which was also dilated. The calculus was spontaneously eliminated within the next days, but the symptoms persisted. The laboratory tests revealed unspecific changes: increased GGT (103 U/l) and positive inflammatory markers (VSH: 60 mm/h, fibrinogen: 496 mg/dl). Repeated ultrasonography showed thickening of the gallbladder wall with a 13 mm gallstone and diffuse parietal thickening of the colon. In addition, the colonoscopy revealed a fibrous perianastomotic stenosis but with normal restant colon. **Results:** Cholecystectomy was recommended in order to decide if the persistence of the symptomatology was caused by the gallbladder lithiasis as a source of stones that can migrate in the main bile duct or the relapse of Crohn's disease. **Conclusions:** This case presentation highlights the importance of using the proper diagnosis techniques in order to differentiate an acute onset of Crohn's disease from an associated pathology with similar clinical aspects.

Keywords: Crohn's disease, abdominal ultrasound, gallstone, colonoscopy

KETOGENIC DIET IN THE MANAGEMENT OF EPILEPSY - WHAT'S NEW?

Tudor-Ionuț Istrate[1], Amelia Tero-Vescan, Kovács Béla, Amalia Miklos, Amelia Tero-Vescan[1]

[1]UMFST Tîrgu Mureş

Background: Epilepsy is one of the most prevalent neurological disorders, affecting around 50-70 million peoples worldwide and it is generally characterised by localized or generalised recurrent seizures, occasionally followed by unconsciousness. As much as 30% of the patients undergoing antiepileptic therapy respond negatively, when ketogenic diet might be considered as a surrogate or complementary therapeutic option to the conventional medication of epilepsy. **Objective:** The present study aims to summarize the current knowledge regarding the application and the advantages of ketogenic diet in the management of intractable epilepsy. **Material and methods:** Information and data regarding the application and advantages of ketogenic diet in epilepsy was gathered based on the scrutiny of the scientific literature with the help of easily accessible databases, such as PubMed and ScienceDirect. **Results:** Up to date four main types of nutritional approaches have been defined, characterised by low carbohydrate and high fat intake (classical ketogenic diet, medium chain triglycerides diet, modified Atkins diet and low glycaemic index treatment). From a physiologic and pharmacologic perspective, the increase of the ketone bodies conclusively to a ketogenic diet, leads to a reduction in glucose consumption by the brain. This in turns, might result in a hyperpolarisation of the neurons, due to the production of glycolytic ATP and the opening of voltage-dependent potassium channels, thus decreasing neuron sensitivity and the risk of seizures.
Conclusions: Ketogenic diet has a pronounced advantage in the management of epilepsy when pharmacologic treatment is futile, having beneficial outcomes in terms of seizure recurrence decline. An important drawback of this therapeutic approach lies in patient compliance, as the rigorous respect of the diet is often challenging concerning carbohydrate intake, side effects profile (hypoglycaemia, diarrhoea, constipation) and might be more costly when compared to the medications used in the treatment of epilepsy.

Keywords: epilepsy, seizures, ketogenic diet, ketone bodies

CANCER-ASSOCIATED RETINOPATHY FROM GASTRIC CARCINOMA

Nadja Pop[1], Robert Tripon[1], Zsolt Attila Szilagyi[1]

[1]UMFST Tîrgu Mureş

Background: Metastasis from systemic carcinoma to the eyes is reported to be extremely infrequent. The most common site of ocular metastasis of systemic cancer is the choroid. However, spread to the iris is very rare. **Objective:** This paper aims to explore the case of a patient with severe retinopathy and to provide possible treatments for these Ophthalmopathies. It is hypothesized that the observed retinal detachment may have occurred as a result of choroidal metastasis, cancer-associated retinopathy (CAR) or chemotherapy induced retinopathy. **Material and methods:** A 48-year-old male presented with complaints regarding visual loss in March 2021. He was previously diagnosed with gastric carcinoma in January 2021. Prior to this appointment, he had never been consulted by an ophthalmologist. Chemotherapy treatment addressing the gastric carcinoma included oxaliplatin and capecitabin. Metastasis of the eyes and retinal detachment appeared after chemotherapy treatment commenced. Fundus photography was performed using a specialized fundus camera as well as Optical Coherence Tomography (OCT) using ZEISS Stratus OCT. **Results:** A visual acuity (VA) of 0.04 was recorded in both eyes without any correction possible. OCT highlighted serous detachment in multiple regions of both eyes, which resulted in the patient's poor vision. Metastasis are present in the iris of the left eye and within the choroid of both eyes. **Conclusions:** CAR is an infrequent process in which antibodies are thought to be designed to target a specific protein produced by the tumour which possesses a similar structure to specific retinal proteins. Anti-Vascular Endothelial Growth Factor Therapy (Anti-VEGF) appears to be highly effective and safe in the treatment of CAR as it prevents antibodies crossing the retinal-blood barrier and thus, stopping fluid accumulation within the retinal layers.

Keywords: Cancer-Associated Retinopathy, Anti-VEGF Treatment, Gastric Carcinoma

THE IMPORTANCE OF HISTOPATHOLOGY IN THE DIAGNOSIS OF BRAINSTEM CAPILLARY TELANGIECTASIA: AN INCIDENTALLY FOUND LESION IN A CASE OF ACUTE CORONARY THROMBOSIS

Nikolas Fruh[1], Laura Chinezu[1]

[1]UMFST Tîrgu Mureş

Background: Brain capillary telangiectasias (BCTs) are intracerebral vascular malformations, which are usually benign and asymptomatic. BCTs are found during autopsies with a frequency of 0.4% and constitute 4% to 20% of all intracerebral vascular malformations. They are most commonly found within the pons. **Objective:** The objective was to highlight the importance of histopathology in the diagnosis of a brainstem capillary telangiectasia associated with acute coronary thrombosis in a 42-year-old male, who suddenly died at home. **Material and methods:** A full autopsy was performed at the Institute of Forensic Medicine of Târgu Mureș. **Results:** Upon macroscopic examination, an old myocardial infarction associated with severe calcified atherosclerosis and acute, massive pulmonary edema was found. No evident signs of hemorrhage were observed during the careful examination of the entire brain, with exception of a small hyperemic area found within the pons. On microscopic examination of the decalcified coronary artery, an acute, obstructive thrombus was found. The examination of the pons revealed numerous, small, dilated capillaries intermixed within the normal brainstem parenchyma. There were no preexisting or new signs of hemorrhagic foci on the brainstem. The diagnosis of brainstem capillary telangiectasia was affirmed, and the established cause of death was cardiac arrest. **Conclusions:** BCTs are rare lesions found during autopsies. The awareness of this vascular malformation together with careful examination of the brain, may be crucial in their identification. A final diagnosis should be based on a thorough histopathological examination.

Keywords: capillary telangiectasia, pons, vascular malformations, histopathology

PEOPLE'S PERCEPTION ABOUT WEARING MASK DURING THE COVID-19 PANDEMIC

Tania Bianca Ungur[1], Toader Septimiu Voidăzan[1]

[1]UMFST Tîrgu Mureş

Background: SARS-CoV-2 (Severe acute respiratory syndrome coronavirus2) is a new coronavirus strain which was never identified before in humans and it causes the disease named COVID-19. **Objective:** Our purpose was to find out the perception of Romanian people regarding the necessity of wearing mask in these times of pandemy. We wanted to see if they agree with its protection against the virus. **Material and methods:** The study was based on an online questionnaire through which we`ve evaluated the knowledge and the position of the participants regarding this new pandemic with the virus SARS-CoV-2. The participants were 680 in total, women and men from Romania, of different ages and different levels of education, from rural areas as well as urban and from different professional fields. For the statistic data analysis was used Statistical Package for Social Sciences program, the Chi-Square test and Microsoft Office Word was used for the graphic design. **Results:** Out of a total of 680 participants, 49,9% believe that the mask is very important, protecting us against the infection with SARS-CoV-2. The age range of 66,2% of the participants was 21-30 years old; 73,1% came from urban areas and 26,9% from rural areas. Also, 80,4% believe that the mask protects not only the wearer, but also the people he interacts with. In the mean time, only 12,9 % chose wearing masks as the most efficient thing to do for our protection against this virus. **Conclusions:** People are aware about the fact that mask plays an important role in the protection against COVID-19, protecting in the same time themselves and the ones they interact with.

Keywords: new coronavirus, mask, protection

IGA LINEAR DERMATOSIS IN A SMALL CHILD: A CASE REPORT

Emese Erdely[1], Oana Tiucă, Silviu-Horia Morariu[1]

[1]UMFST Tîrgu Mureş

Background: Linear immunoglobulin A dermatosis (LAD) is a rare, autoimmune subepidermal vesiculobullous idiopathic disease. It can affect both adult and pediatric patients. The clinical presentation is heterogeneous. **Objective:** To present a case of LAD in a small child and its therapeutic approach. **Material and methods:** A 5-year-old male patient presented with a blistering and itching eruption in evolution for 2 weeks. The lesions were located on the trunk, upper and lower limbs and consisted of round and oval shaped bullae and vesicles. The lesions arised both on normally looking skin and on top of erythematous, flat oozing patches. They were distributed in an annular shape.Some of the lesions presented with a target aspect. The string of beads sign was positive. Secondary to the associated pruritus, crusts and scratch lesions were identified. **Results:** No significant history of drug consumption or associated diseases was identified for this patient. General laboratory findings were within normal limits. Systemic treatment with antibiotics and medium doses of corticosteroids, as well as local treatment with emollients and steroid ointment was initiated. The patients' evolution was favorable, with a significant improvement of the lesions in approximately 10 days. **Conclusions:** LAD is a challenging bullous dermatosis, which is associated with a broad and difficult differential diagnosis. Careful examination of such patients, as well as multidisciplinary approach is essential for these cases.

Keywords: IgA dermatosis, child, bullae

THE IMPORTANCE OF TRANSTHORACIC ECHOCARDIOGRAPHY IN YOUNG PATIENTS WITH STROKE OF UNKNOWN CAUSE – A RARE CASE OF ATRIAL MIXOMA

Mara-Constantina Ilovan[1], Cristian Ioan Cîmpian[1], Lidia Iordache[1], Ion Florian-Bogdan[1], Adrian-Alexandru Iliescu[1], Smaranda Maier[1]

[1]UMFST Tîrgu Mureş

Background: Cardiac myxomas represent the most common benign heart tumors, being typically localized in the left atrium. In very rare cases, they can cause transient ischemic attacks and stroke, frequently affecting females between the age of 30 and 60. **Objective:** The aim of this presentation is to highlight the necessity of performing

simple procedures in order to correctly identify the root cause of the problem and avoid further complications, even more so in a time ruled by pandemic restrictions. **Material and methods:** We describe the case of a 38-year-old female patient admitted to the Neurology Clinic due to her history of 4 recurrent transient ischemic attacks and strokes, with no apparent cause. The patient had no significant medical history, nor did she present any abnormalities in the medical workup that has been performed. Her clinical examination depicted a right limb motor deficit, but her laboratory tests, as well as the ultrasound imaging were normal. A 2D transthoracic echocardiography has been ordered following her fourth ischemic episode, revealing a giant left atrial myxoma. The elected course of treatment for this patient has been the removal of the mass by a surgical approach, as she was not a candidate for intravenous thrombolysis. **Results:** The postsurgical evolution of the patient has been highly favourable, as no cardiological, nor neurological complications have appeared. The postsurgical echography noted the absence of the tumoral mass, with intact and functional remaining cardiac tissue. The patient presented mild right limb motor deficit and a complete regression of the cerebellar signs one month succeeding the surgery. **Conclusions:** Our patient's specific complication was the consequence of late diagnosis and delayed adequate treatment. Therefore, including routine transthoracic echocardiography in the workup protocol for ischemic stroke is of high importance, especially in patients with no traditional cardiovascular risk factors, as it would rule out unconventional determining factors for disease.

Keywords: Cardiac myxoma, Transient ischemic attack, Stroke, Transthoracic echocardiography

---

ANAPHYLAXIS-LIKE SKIN RELATED REACTION AT OMBITASVIR/PARITAPREVIR/RITONAVIR AND DASABUVIR IN HCV NON-CIRRHOTIC PATIENT

Oana Bianca Popovici[1], Cristina-Alexandra Raț[1], Claudiu-Ionuț Sântean[1], Crina Fofiu[1], Daniela Dobru[1]

[1]UMFST Tîrgu Mureş

Background: Paritaprevir, Ombitasvir, Ritonavir and Dasabuvir for 12 weeks is the approved regimen for the patients with genotype 1b hepatitis C virus infection in Romania. Although several cases of serious adverse events have been identified, no study so far reported anaphylaxis-like skin related reaction in non-cirrhotic patient following this therapeutic regiment. **Objective:** We aim to present the case of a 42-years-old female diagnosed with HCV infection in 2014 who initiated Interferon free oral regimen but after she took the first dose of DAAs she presented in emergency department with anaphylaxis-like skin related reaction. **Material and methods:** A 42-year-old female diagnosed with HCV infection in 2014, presented in emergency department for suddenly feeling "her face too warm", with flushed skin and the appearance of erythaematous skin lesions associated with itching on her body after two hours she started the treatment with direct-acting antivirals. **Results:** Physical examination revealed erythematous and oedematous plaques on her left cheek, neck, chest and in the middle-distal area of the right arm. Serial laboratory showed eosinophilia. Considering the rapid progression of the lesions the treatment was ceased and antihistamines with intravenous corticotherapy were started. Also, described skin lesions were reported as drug-related adverse event. **Conclusions:** We report the first case of anaphylaxis-like reaction due to Ombitasvir, Paritaprevir, Ritonavir and Dasabuvir and highlight the need of testing for potential atopic reaction before starting NS3-3A protease inhibitor regimens.

Keywords: hepatitis C infection, direct-acting antivirals, anaphylaxis reaction

---

ACUTE MYELOID LEUKEMIA AND SARS-COV-2

Arundhati Sharma[1], Anca Bacarea[1]

[1]UMFST Tîrgu Mureş

Background: Acute Myeloid Leukemia (AML) is described as the cancer of blood and bone marrow. The incidence is 3.5 per 100,000 people per year and age-adjusted incidence is higher in men than in women. **Objective:** The intent of this work is to present a case of Acute Myeloid Leukemia that is worsened by SARS-CoV-2. **Material and methods:** We describe a 70-year-old female, who presented in the Emergency County Hospital Târgu Mureș with fatigue, nausea and diffuse abdominal pain. Based on clinical investigations it was found that she had AML. Her past medical history revealed that since 2015, she had been suffering from Polycythemia Vera, a myeloproliferative disease. In 2021 on admission, lab tests were carried out and it was deduced that the patient had significant leukocytosis, anemia and thrombocytopenia. Her immunophenotyping performed from peripheral

blood showcased blastic population and provided us with the following results: CD34: 95%, HLA-DR:95%,CD13: 90%,CD33:80%,CD117: 90% and CD11b,CD14, CD64, CD36,CD56,CD3,CD5,CD7,CD10,CD19,CD22, CD41a,CD42b all were negative. After few days, her PCR for COVID-19 was positive. **Results:** Based upon the investigations conducted before, the patient is diagnosed with AML which is furthermore complicated with the COVID-19 infection. The scientific literature has shown that Polycythemia Vera diagnosed earlier in the patient could have been an infrequent case of turning into AML; the likelihood of this being 2% to 14% within 10 years. **Conclusions:** The rare situation of Polycythemia Vera and then subsequent detection of AML along with SARS-CoV-2 infection caused an immune compromise in the woman. According to the data available on PubMed, chemotherapy for AML should be reasonably delayed in order to provide appropriate management for the COVID-19 infection. The treatment for AML relies on cytogenic profile and other patient factors. Till date there is not enough evidence in the scientific journals and literature of a case occurrence like this.

Keywords: Acute Myeloid Leukemia, Polycythemia vera, SARS-CoV-2

CUTANEOUS VASCULITIS AND SARS-COV-2

Arundhati Sharma[1], Muntean (Duicu) Carmen[1], Gabriela Bucur[1]

[1]UMFST Tîrgu Mureş

Background: Cutaneous vasculitis refers to the condition that causes inflammation of blood vessels in the skin. These may include capillaries, venules, arterioles and lymphatics. **Objective:** This paper aims to present a case of a pediatric patient demonstrating skin-related vasculitis and COVID-19 infection. **Material and methods:** A non-febrile 10-week-old male was brought to the Pediatrics Clinic for dermatologic changes on the left hand. On a detailed head-to-toe examination, respiratory, cardiac and abdomen assessments were normal except for hemorrhagic manifestations on the skin such as petechiae, macular exanthema and ecchymosis on the 4th left finger (15 mm diameter) without any traumatic context. They did not disappear with pressure. The lab investigations revealed lymphocytosis, neutropenia and increased liver enzymes. SARS-CoV-2-real-time PCR test was positive. Other possible causes for skin abnormalities have been ruled out. Evolution was good with lesions disappearance just with symptomatic therapy. **Results:** The authors presented an atypical case of cutaneous vasculitis in a small infant with SARS-CoV-2 infection. **Conclusions:** The acral, non-blanching rash suggests an ischemic hemorrhagic cause. Hence, cutaneous vasculitis is an atypical but possible presentation of COVID-19 disease. Recognition of skin manifestation, even before the onset of fever, associated with COVID-19 by pediatricians and other health care professionals is essential.

Keywords: Cutaneous vasculitis, SARS-CoV-2, Infant

THE CLINCAL EVOLUTION OF MULTIPLE SCLEROSIS IN THE ERA OF DISEASE MODIFYING THERAPIES

Ana-Maria Alexandra Muscalu[1], Teodora-Lucia Moldovan[2], Raluca Maria Popa[2], Rodica Bălașa[2], Laura Bărcuțean[2]

[1]UMFST Tîrgu Mureș
[2]UMFST Tîrgu Mureş

Background: Multiple sclerosis (MS) is a chronic inflammatory disease of the central nervous system that accounts as the most common cause of long standing neurological disability in young adults. Disease modifying therapies (DMTs) play a key role in the disease's course by slowing down the natural course of the disease. **Objective:** We intended to evaluate the clinical and paraclinical aspects of MS patients treated with different types of DMTs, in order to evaluate and compare their effectiveness. **Material and methods:** We performed an observational study on MS patients that were started on DMTs after their first documented neurological event. The general and demographic characteristics were noted individually. The patients were clinically assessed based on the Expanded Disability Status Scale (EDSS), annual relapse ratio before and after treatment was started (ARR). **Results:** We included a total of 123 MS patients that started immunomodulatory treatment after the first demyelinating event, from January 2015 to January 2020. A number of 54 (43.90%) patients started Interferon-β1a intramuscular, 29 (23.57%) Interferon-β1a subcutaneously, 22 (17.88%) Glatiramer Acetate, 9 (7.31%) Interferon-β1b and 9 (7.31%) Teriflunomide. No statistically significant changes were noted for the disability progression as per EDSS calculation ($p=0.058$). The ARR after treatment was started was significantly lower ($p<0.0001$) compared to the initial relapse rate, not only in the overall number of patients but also individually for the 5 group

therapies. **Conclusions:** Early initiation of immunomodulatory treatment is associated with a better long-term prognosis on the basis of reducing the relapse rates and reducing disability progression. Clinical longitudinal assessment of MS patients is essential in order to adequately appreciate the optimal DMT selection.

Keywords: multiple sclerosis, long-term prognosis, disease modifying therapies, clincal evolution

---

SEVERE ANEMIA IN A CASE OF A SILENT TUBULO-VILLOUS DUODENAL ADENOMA

Andreea Mocanu[1], Mihaela Măican[1], Gabriela Oancea[1], Adham Sleem[2], Mihaela Nicoleta Mihalache[1], Monica Pantea[1], Anca Negovan[1]

[1]UMFST Tîrgu Mureş
[2]Another University

Background: Duodenal adenomas have a high malignant potential, sometimes discovered incidentally during upper endoscopy in asymptomatic patients with no suggestive clinical picture.Usually situated in the ampullary or periampullary region of D2, duodenal obstruction is a sign of advanced disease, while compressing the common bile duct or the Wirsung duct can lead to cholestasis and pancreatitis. They can appear sporadically, but they usually occur in the context of familial adenomatous polyposis (FAP). **Objective:** To present a case of an anemic patient with multiple comorbidities and a history of gastrointestinal bleeding, screened for severe anemia and diagnosed with duodenal tubulo-villous adenoma in sporadic form with no specific symptoms and no history of FAP. **Material and methods:** A 73-years-old male with multiple cardiovascular conditions (arterial hypertension, arrhythmias, angioplasty with stent placement for coronary artery disease, left heart failure), with double antithrombotic therapy and history of hemorrhagic duodenal ulcer reported progressive pallor, asthenia and fatigue in the last 6 months. Laboratory tests indicated a severe anemia (Hgb 4,5 g/dl, MCV:57fL; INR:2.4), with no signs of digestive hemorrhage. A gastroscopy was performed and an ampullary duodenal mass was detected, protruding the lumen and biopsies were taken. Histopathological exam revealed a tubulo-villous adenoma with high grade dysplasia. The MRI confirmed papillary mass protruding the duodenal lumen, with secondary distention of the Wirsung, the main biliary duct and extrahepatic cholestasis. **Results:** The antithrombotic therapy with Rivaroxaban and Clopidogrel was stopped due to severe anemia and LMWH was initiated. Anemia was corrected after repeated blood transfusions (Hgb 9,5 g/dl) and the patient was referred for echo-endoscopy and evaluated for the opportunity of ESD(endoscopic submucosal resection) as a curative therapy. **Conclusions:** The particularity of this case stays in the elderly patient with double antithrombotic therapy for severe underlying cardiovascular disease with a history of duodenal ulcer bleeding presenting a big papillary tumor causing extrahepatic cholestasis and chronic blood loss, without obstructive symptoms but only clinical findings of severe anemia.

Keywords: anemia, tubulo-villous adenoma, duodenal

RISK FACTORS CONTRIBUTING TO IRON DEFICIENCY ANEMIA IN CHILDREN

Nicola Rojas[1], Alexandra Cristina Rusu[1], Rebecca Amalfi[1], Michela Parente[1], Carolina Robillotta[1], Virginia Bodescu[1]

[1]UMFST Tîrgu Mureş

Background: Iron deficiency anemia (IDA) is the most common form of anemia worldwide. It is a major public health problem in developing countries. IDA is a hypo-regenerative, microcytic and hypochromic anemia with marked anisocytosis due to a reduced availability of iron for the erythropoiesis. A hemoglobin value 5 percentile below the normal hemoglobin value specific for that age is defined as anemia. **Objective:** IDA is usually a laboratory finding in children admitted for other reasons for example respiratory tract infection or urinary tract infection. The main objective of this study was to identify risk factors associated with anemia in children admitted to the hospital. **Material and methods:** We studied all patients admitted to the Pediatric department of Mureș County Hospital from the 1st of January until the 31st of December 2019. The inclusion criteria for this study were: age (between 1 month and 18 years) and anemia as a primary or secondary discharge diagnosis. Data collected from the patient group included age, gender, main complaint, laboratory investigations and the iron treatment. The patients were divided into two groups depending on if anemia was the primary or secondary discharge diagnosis. Patients, who were suffering from hematological disorders, metabolic disorders and had an incomplete complete blood count (CBC) were excluded from this study. **Results:** The total number of patients fulfilling the inclusion criteria was 76. The data analyzed showed that most cases of anemia occur within the first two years of life and are correlated with feeding problems. Gastrointestinal and respiratory infections are the main diseases associated

with anemia in both groups. **Conclusions:** Anemia in children is usually a laboratory finding. Risk factors for anemia in admitted children identified by our study are prematurity, respiratory tract infections and gastro-intestinal diseases, alongside with an imbalanced diet.

Keywords: Anemia, Microcytic, Iron deficiency

THE PREVALENCE AND FATALITY RATE OF COVID-19 AND INFLUENZA DURING 2019-2021 IN ROMANIA

Carmen Elena Dulhan[1], Theofana Mihăilă[1], Ionut Dragoi[1], Diana-Maria Chiriac[1], Septimiu Toader Voidăzan[1]

[1]UMFST Tîrgu Mureş

Background: A sustainable model to follow for managing the pandemic caused by Covid-19 virus infection is based on the control of Influenza epidemics that have occurred until nowadays. Both pathogens are RNA viruses with respiratory tropism, that show similar manifestations. **Objective:** We conducted a comparative and retrospective nationwide study to compare the number of cases and deaths. **Material and methods:** Data was obtained from the official website of the National Institute of Public Health and included patients confirmed with Covid-19 from 03.03.2020-14.02.2021 and patients infected with the Influenza virus, from 30.09.2019-17.05.2020. **Results:** The reports indicated 763,294 confirmed cases with Covid-19, the highest number (58,221) being reported between November 9 - 15. A number of 19,455 (2.54%) deaths occurred with the greatest rate (1066) between November 30 - December 6, 2020. Regarding the Influenza virus reports showed 49.314 clinically suspected cases from which 1929 were laboratory confirmed with 73 deaths (3.78%) reported. The highest rate of cases (318) was reported between January 27 February 2nd 2020 and the biggest number of deaths (16) was between 3 and 9 February 2020. The flu season of 2019 - 2020 follows a similar pattern to previous years, with an increase in early December, a peak in late January to February and an end in early March. At the end of March 2020, the Covid-19 pandemic just registered its first victims, following a substantial increase with a plateau period in the second half of April-beginning of May due to the measures and restrictions established by the authorities. The number of deaths was still significant, well above those caused by the flu at the peak of its 2019-2020 season. **Conclusions:** Compared to influenza viruses, SARS-CoV 2 infection appears to have a much more serious respiratory pathogenicity, generating more respiratory complications, as well as a higher mortality.

Keywords: SARS-CoV2, Influenza, virus, prevalence

SOCIAL SUPPORT NETWORK PARTICULARITIES OF PATIENTS WITH ALCOHOL USE DISORDER

Alex Claudiu Boacă[1], Aurel Nireştean[1]

[1]UMFST Tîrgu Mureş

Background: Alcohol use disorder (AUD) is a medical condition that affects almost 9% of the European population. According to WHO, this disorder is responsible directly or indirectly for 10% of deaths in the European region. Around 40 to 50% of the risk of developing AUD is attributable to environmental factors. Sociocultural factors play an important role in the development of AUD and the social support network has a great importance in its treatment but the negative implications of the social support network have not been extensively studied. **Objective:** The objective of this study is to find certain characteristics of the social support network that might have positive or negative implications for the evolution and treatment of this disorder. In other words this is a hypothesis generator study. **Material and methods:** The data for this study were gathered by interviewing alcoholic patients of the "Psychiatry Clinic nr. 2" of Târgu Mureș between 02.09.2020 and 15.04.2021. During this time 17 male patients were interviewed. The study was approved by the Research Ethics Committee of UMFST Târgu Mureș (nr. 1093/01.09.2020) and by the Ethics Committee of the Mureș County Clinical Hospital (nr. 4190/14.04.2020). **Results:** Two(12%) patients reported a social hobby, rarely practiced. One patient (6%) said that reading is his hobby and the remaining 14 (82%) mentioned either work at home, former hobbies or none at all. Another noteworthy observation is that 13 patients (76%) were actively consuming alcohol at pubs, at other people's houses or at restaurants while 3 (18%) are only rarely drinking in these locations and 1 (6%) said that he used to consume alcohol at these locations. **Conclusions:** The main conclusion is that alcohol consumption might be the main way to socialize for people with AUD and it might be possible to reduce the amount of alcohol consumed if alcoholics would have social hobbies.

Keywords: Alcohol use disorder, Social support network, hobbies

IMPROVEMENTS IN LEFT VENTRICULAR DIASTOLIC FUNCTION AFTER CARDIAC RESYNCHRONIZATION THERAPY

Raluca-Teodora Holcă[1], Mihaela Dănilă, Diana Horea[1], Marius Pata[1], Silvia Lupu[1]

[1]UMFST Tîrgu Mureş

Background: In patients with dilated cardiomyopathy (DCM), left bundle branch block (LBBB) affects both ventricular activation and mechanical contraction. Cardiac resynchronization therapy (CRT) was shown to improve the left ventricular (LV) function and the left atrial (LA) function in patients with refractory heart failure (HF). **Objective:** The aim of this presentation is to assess the LA function by using atrial strain imaging and the improvement in transmitral filling velocities within 6 days after CRT. **Material and methods:** We present the case of a 63-year old patient, with LBBB, who was diagnosed with non-ischemic DCM, severely depressed systolic function and NYHA III HF on maximum tolerated HF treatment. Electrocardiography exhibited a heart rate of 90 beats per minute (bpm) and a QRS duration of 160 milliseconds. According to the guideline, the patient has class I indication for CRT. Echocardiography was performed to assess transmitral flow velocities and revealed E/A wave fusion with predominant A wave and a single distinct wave on LA strain corresponding to the atrial systole. **Results:** After the procedure, the electrocardiogram showed a dominant R wave in V1. After atrio-ventricular delay adjustment and rate control with Ivabradine, transmitral flow assessment revealed distinct E and A waves, without A wave truncation, at a heart rate of 73 bpm, and increasing the diastolic filling time/RR interval ratio from 25% to 52%. Moreover, we obtained two distinct curves in left atrial strain corresponding to early diastole (LA conduit function) and atrial systole (LA pump function), respectively. **Conclusions:** The improvement in diastolic function, objectified by the aspect of transmitral flow and the diastolic filling time/RR interval ratio after CRT may suggest that early optimization of atrio-ventricular delay and appropriate heart rate control may have a positive impact on the LA function within days.

Keywords: CRT,, transmitral flow velocities,, left atrial strain .

IMPORTANCE OF INFLAMMATORY FACTORS ON BIPOLAR DISORDERS (BD) PRINCIPAL AUTHORS: LUKAS GEORG PLEYER, 5TH YEAR STUDENT GENERAL MEDICINE UMFST TIRGU MURES CRISTIAN GABOS-GRECU, MD DEPARTMENT OF PSYCHIATRY UMFST TIRGU MURES

Lukas Pleyer[1], Cristian Gabos-Grecu[1]

[1]UMFST Tîrgu Mureş

Background: Bipolar disorder (BD) is a severe psychiatric disorder, in which the patient presents two faces of extreme mood state: a depressive episode, in which the mood is very low and a maniac episode, in which the mood is very high. The present paper aims to show the link between inflammatory factors and Bipolar disease (BD) and out of that a new method for the diagnosis and treatment of BP which may help in preventing extreme mood states. **Objective:** The first pioneers who discovered the relationship between inflammatory factors and Bipolar Disorders were Horrobin and Lieb (1981) who made the hypothesis that the effect of Lithium which was administered to patients with BD as a mood stabilizing agent, was basically because of its immunomodulatory mechanism by improving the patient´s outcome. **Material and methods:** For this paper we did a retroperspective research on several studies about Inflammatory factors on Bipolar Disorders, evaluating and summing up the development from the introduction of inflammatory factors in psychiatric research towards the latest discoveries from 2015 until 2021. The studies used for creating our paper were based on clinical research. In total the results were obtained from 8 clinical studies. **Results:** There is definitely evidence that there is a strong connection between inflammatory factors, especially cytokines and Bipolar Disease, which should be used in the diagnosis, the treatment and prediction of the disease. Until now reliable biomarkers for BD are missing, which makes it really hard in controlling the course of the disease and preventing extreme mood states. **Conclusions:** It is definitely necessary that today in modern psychiatry several ways of diagnostic methods exist, including biomarkers. By having a reliable diagnostic method which can be easily done, the treatment in BD can be started earlier and predictions can be made about maniac/depressive episodes, helping the patients by improving their quality of life.

Keywords: Bipolar Disorder, Inflammatory Factors, Depression, Mania

MICROSCOPIC ASPECTS OF CERVICAL INTRAEPITHELIAL NEOPLASIA AND INVASIVE CERVICAL LESIONS DIAGNOSED IN TISSUE SAMPLES

Diana Horea[1], Raluca-Teodora Holcă[1], Mădălina Aurelia Husariu[1], Marius Pata[1], Raluca Ibănescu, Emöke Horváth[1]

[1]UMFST Tîrgu Mureş

Background: Cervical carcinoma represents a serious health problem in the world. Thus, it is important to develop an adequate screening program to enhance the early detection of premalignant and malignant lesions. **Objective:** The aims of this study were to investigate the utility of using p16/Ki-67 immunohistochemical stain on cervical tissue samples and to analyze the correlation between abnormal cytological test results and histopathological diagnosis. **Material and methods:** The descriptive, retrospective study was performed on a number of 168 cervical tissue and endocervical samples from 2018-2020. The following data were analyzed in this study: the type of lesions, the grade of cervical intraepithelial neoplasia (CIN), the cervical neoplasia mimicry, the role of p16/Ki-67 immunohistostaining in the diagnosis of L-SIL vs H-SIL, and the concordance between histopathological and cytological diagnosis. **Results:** The age range of patients was 21 to 72 years. CIN and cervical carcinoma accounted for 19% and 11% of the total cervical tissue samples, respectively. 45 cases required immunohistochemical examination to determine the diagnosis. In 47 cases we had the possibility to correlate the histopathological diagnosis with the cytological one. In ASC-US lesions, histopathological intraepithelial neoplasia was found in 30% of cases. The percentage in the case of L-SIL was 50% while in the case of ASC-H increased to 62% (18% L-SIL and 43% H-SIL). Histopathological results in H-SIL cervical cytology confirmed a high-grade lesion in 53%, L-SIL in 7%, and carcinoma in 15% of cases. Also, 30% of these lesions were associated with inflammatory lesions such as cervicitis with reactive and atrophic atypia. **Conclusions:** Based on results, current screening and diagnostic methods of cervical lesions seem to be adequately identifying premalignant and malignant lesions. The expression of p16 and Ki-67 in cervical lesions is useful for confirming high-grade lesions and for excluding overdiagnosis of cervicitis with reactive atypia, respectively.

Keywords: Pap smear Test, histopathology, immunohistochemistry, CIN

CONTACT LENS HYGIENE COMPLIANCE AND ITS IMPACT AMONG USERS

Irina Minodora Moldovan[1], Florina Vultur[1]

[1]UMFST Tîrgu Mureş

Background: Contact lenses are used by approximately 300 million people worldwide, mainly for the correction of refractive errors, representing an effective and aesthetic method. However, non-compliance with related hygiene rules can lead to sight-threatening complication. **Objective:** This study aimed to assess the level of compliance with related hygiene rules among contact lens wearers and the prevalence of associated eye complications. **Material and methods:** A cross-sectional study was performed in April 2021. Data was collected by creating a web-based survey using Google Forms, wich was distributed trough social media platforms. The target group consisted of contact lens wearers over the age of 18. Participants were interviewed about their compliance with hygiene rules related to contact lens use and a compliance score was calculated. The presence of ocular symptoms specific to corneal infections and corneal infections diagnosed during contact lens use was also analysed. **Results:** A total of 3604 respondents participated in this study. 99.7% of participants reported at least one contact lens hygiene risk behavior and all participants reported at least one symptom specific to corneal infections. There was a relatively higher compliance score among female participants and those over the age of 35 ($p=0.001$). Participants who use daily disposable contact lenses presented the best compliance score ($p<0.0001$). People who use contact lenses prescribed by a specialist, those who consider themselves informed about proper hygiene and complications associated with contact lens use and those who have the main source of information a specialist or medical literature, show a higher compliance score ($p<0.0001$). In addition, participants with poor compliance had two or more ocular symptoms specific to corneal infections and a higher prevalence of corneal infections diagnosed during contact lens use. **Conclusions:** Findings of this study showed a poor compliance with majority of hygiene rules, resulting in the high prevalence of ocular symptoms specific to corneal infections.

Keywords: Contact lenses, Hygiene rules, Complications

THE ROLE OF STATINS IN THE PREVENTION AND EVOLUTION OF HEPATOCELLULAR CARCINOMA

Michela Parente[1], Nicola Rojas[1], Carolina Robillotta[1], Arundhati Sharma[1], Mira Sandersfeld[1], Kinga Noémi Székely[1]

[1]UMFST Tîrgu Mureş

Background: Liver cancer is the sixth most common cancer worldwide, and the third most common cause of death due to cancer in 2020. Hepatocellular carcinoma (HCC) is the most common subtype of liver cancer, representing about 75% of the cases. HCC risk factors span from alcohol abuse to viral infection, to mycotoxin poisoning. **Objective:** This systematic review aims to draw relationships between statin use and HCC prevention and evolution. The object of interest was the protective role of statins in patients with predisposing factors to the onset of HCC and the positive effect of these drugs in the evolution of HCC afflicted patients. **Material and methods:** The primary search strategy was created in PubMed and resulted in a final pool of papers including only articles published in English based on human research, spanning from 2014 to 2021. Most articles included patients ≥18 years of age, with baseline risk factors for liver cancer or diagnosis of HCC itself. The main exclusion criteria were the presence of cancers likely to metastasise to the liver, and the lack of baseline data. **Results:** A total of 19 studies involving 733.969 patients were analysed. The studies included have shown decreasing incidence of HCC in statin users with chronic liver diseases such as NAFLD, HBV, HCV, and other systemic diseases predisposing to the development of HCC such as diabetes and obesity. Statins have proven to be protective against the onset of the disease and to improve the evolution of pre-existing HCC, showing a 5-year disease-specific survival rate increase from 44% to 83% in palliative HCC statin-using-patients. **Conclusions:** This review serves as evidence in support of the protective effect of statins against HCC incidence based on chronic liver diseases and against HCC specific death. Additional studies are needed to determine whether statins are associated with the prevention and the positive evolution of HCC.

Keywords: hepatocellular carcinoma, statins, protective

A RARE CASE OF TURNER SYNDROME WITH ISOCHROMOSOME XQ

Herman Denisa[1], Diana-Maria Domnița, Roxana Bolchiș[1], Andra Radu, Adina Fulop, Andreea Cătană[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Turner syndrome, a genetic disorder that affects about 1 in every 2500 baby girls worldwide, is caused by partial or complete loss of one X chromosome. Monosomy is the most common, but there are also individuals with mosaicism or rarer abnormalities such as deletion of one arm, isochromosome of the long arm and ring chromosome. **Objective:** Our aim is to contribute with information regarding the karyotype-phenotype correlation of a unique case of Turner syndrome with 46,X,i(Xq) karyotype. **Material and methods:** A 13-year-old female patient presented to the Genetics Department with short stature, facial dysmorphia (webbed and short neck, low-set posterior hairline), thorax anomalies (shield chest, widely spaced nipples) and limb anomalies (cubitus valgus, short fourth metatarsal, clinodactyly, flat foot, lymphedema, hypoplastic nails with convex appearance). Her prenatal history mentioned a nuchal translucency of 4 mm and a short femur. In addition, she presented with grade 2 systolic murmur, Tanner stage I, partial hearing loss and protanopia. **Results:** Karyotype analysis revealed a non □□□□□□□ form of X isochromosome of the long arm, confirming the diagnosis of Turner syndrome. Taking into account the increased risk of some comorbidities associated with 46,X,i(Xq) karyotype (hearing loss, autoimmune disorders, especially thyroiditis), further investigations were made. On ultrasound, coarctation of the aorta and horseshoe kidney were found and the hormonal assay tests revealed primary ovarian insufficiency. The treatment consisted of anabolic steroids in association with growth hormone, along with estrogen and progestogen substitution. Following the treatment, rhythmic menstrual cycles were achieved. **Conclusions:** This case provides deeper insight into 46,X,i(Xq) karyotype-phenotype correlation previously reported in the literature, but further studies are necessary to clarify the association. Consequently, better management regarding Turner's comorbidities should be considered.

Keywords: Turner syndrome, karyotype, isochromosome Xq

EXTRAPULMONARY TUBERCULOSIS: A CHALLENGING CLINICAL CASE

Andreea-Florentina Pavel[1], Ionela-Mădălina Pavel, Călin-Mihai Pop, Daiana-Lorena Pop[1], Bogdan Pastor[1], Corina Budin[1]

[1]UMFST Tîrgu Mureş

Background: Tubercoulous spondylitis, also known as Pott's disease is a presentation of extrapulmonary tuberculosis. **Objective:** Our aim is to highlight the error of diagnosis of an osteoarticular tuberculosis wich was primarly diagnosed as a spinal tumour. Differential diagnosis of osteoarticular tuberculosis is made mainly with malignant tumors, bone cysts, osteomyelitis, nonspecific abscesses. **Material and methods:** We present the case of a 38-year old male patient, smoker, without any comorbidities, who complains of severe back pain and paraplegia beginning since November 2020. No complaints about weight loss or night sweats. Informed consent was obtained from the patient for hospitalization. For clinical case report, we respected the standards of personal data protection. An MRI was performed and showed destruction of the verterbral bodies at T9-T10 level, compression, associated vertebral block and extensive spinal cord invasion at this level. The disciplinary commission (oncology and neurosurgery) decided to perform radiotherapy as a treatment for this patient, thus establishing the diagnosis of vertebral tumor at T9-T10. Although the patient denies tuberculosis in the family or exposure to tuberculosis, the suspicion of a bone TB arises based on MRI findings. So, a surgical biopsy was performed and the sample was send for histopathological examination. **Results:** The biopsy showed chronic inflammatory infiltration, Langhans cells, necrosis areas, majority of the cells present positive immunomarking for CD68, prove negative for S100 and GFAP, confirming the diagnosis of tuberculosis spondylitis. The treatment regimen was subsequently initiated with anti-tuberculosis medication and corticosteroids, the patient having excellent compliance. Reparative surgical intervention is taken in consideration, too after medical treatment. **Conclusions:** The correct and early diagnosis of Pott's disease can save a patient's life and ensure an improvement in the quality of life. This involves a good anamnesis and a thorough interpretation of the investigation and a well-supported differential diagnosis with other pathologies.

Keywords: Pott’s disease, spinal tumor, radiotherapy

PERCEPTIONS REGARDING HEALTHY EATING AMONG GENERAL POPULATION

Iulia Ștefana Cerciu[1], Laurentiu Sabou, Ioana Ciontoș[1], Daniela-Edith Ceană[1]

[1]UMFST Tîrgu Mureş

Background: Health is not only defined by absence of disease, but also by good state of physical and mental. The spread of conflicting information and even misinformation might be playing an important role in obesity epidemic, many researchers found that there appeared to be much more confusion about what eating habits are healthy and what aren't. **Objective:** The aim of the present study was to examine basic nutrition knowledge and gender variations in knowledge, also personal perspective regarding healthy eating, in a cross-section of the adult population. **Material and methods:** In order to perform this study, data was assessed using an anonymous questionnaire which included 26 multiple-answer questions covering demographic data (sex, age, background), anthropometric data, medical condition, basic knowledge relating to nutrition, dietary recommendations and everyday food choices. A total of 322 individuals responded to our questionnaire. Data was processed with Excel Microsoft and analyzed with GraphPad. **Results:** From the total of 322 participants, 248 - 77% were females, 74 - 23% were males, aged between 18-60 years old. Considering BMI, 63% were normal weight, 24% overweight, 10% underweight and 3% obese. 62% of the candidates review themselves as well enough informed about nutrition, while other 38% declare lack of nutrition knowledge. Lack of knowledge was significantly associated with abnormal BMI values (underweight/overweight) p value<0.0001, OR=3.86, IC:2.239-6.680. Additionally, most of them, 85% declare to pay attention on food's labels. Females were significantly associated with tendency for "healthy" labeled food products, p value<0.0001, OR=3.86, IC: 2.239-6.680. **Conclusions:** Certain groups of people are more often confused and tend to make mistakes when asked about healthy lifestyle choices, this might be attributable to marketing and presenting food as "healthy", lack of knowledge due to poor educational system and programs.

Keywords: nutrition, healthy, labels

AWARENESS OF HUMAN PAPILLOMAVIRUS INFECTION RISKS AMONG ROMANIAN WOMEN

Ioana Ciontoș[1], Iulia Ștefana Cerciu[1], Daniela-Edith Ceană[1]

[1]UMFST Tîrgu Mureş

Background: HPV infection is known as being linked to cervical cancer, being one of the most common sexually transmitted infection and it's considered to be a public health problem that could be improved by intensively informing population on this topic. In Romania, cervical cancer is the second most frequent type of cancer of women, after breast cancer. **Objective:** This study intends to identify level of knowledge about HPV infection and concerning about risk factors in females by taking in consideration their sources of information. **Material and methods:** We performed a cross-sectional study using an anonymous questionnaire which included 20 multiple-answer questions. The questions referred to demographic data (age, background), source of information and general aspects regarding HPV infection, as symptoms, prophylaxis, risk factors. **Results:** The study included 362 participants, all of them were females, aged between 18-59 years old. Based on the questions asked, 15,2% stated that they had never been informed about HPV infection, risks or prophylaxis, but they are convinced that programs and adequate information, would be helpful in lowering the prevalence of cervical cancer. Study shows that participants who have as a source of information medical articles or medical books, do their screening tests periodically. **Conclusions:** Due to numerous sources of information, certain groups of people tend not to be aware of the risks of HPV infection, this leads to an increase in the number of cases of cervical cancer. Campaigns with verified medical information could raise women's awareness of the severity of HPV infection.

Keywords: HPV infection, cervical cancer, documentation sources

A 2MB DELETION IN A PEDIATRIC PATIENT WITH THE SUSPICION OF A NEUROMETABOLIC DISORDER

Tudor Hîrlea[1], Ionuț-Gabriel Dumitru[1], Mădălina Lazăr[1], Diana-Laura Miclea[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Neurometabolic disorders are a spectrum of pathologies that present with nonspecific neurological manifestations. As an early and accurate diagnosis is desirable for a proper management of the patient, genetic testing is playing a major role in the identification of uncommon disorders. **Objective:** The purpose of this case report is to emphasize the role of CGH array in the management of pediatric neurometabolic disorders and pinpoint the possible implications of the 10q11.22 region in the neurodevelopmental process. **Material and methods:** We present the case of a 6-year-old patient previously diagnosed with epilepsy, severe psychomotor retardation, left spastic hemiparesis, loss of psycho-motor acquisitions and a history of excised nephroblastoma. The patient presents in the neurology ward for further investigations. **Results:** The patient presented a modified lipid panel, low vitamin D levels, but normal plasma amino acids chromatography, urine organic acids test, carnitine levels and muscle enzymes. The brain MRI showed diffuse cortical atrophy, more pronounced in the cerebellum. The CGH array revealed a 2Mb deletion in the 10q11.22 region, affecting 4 OMIM genes (WASHC2C, SYT15, PPYR1, GPRIN2). The patient continued the treatment with levetiracetam and valproic acid. **Conclusions:** This case provides insight in the management of a pediatric patient with the suspicion of a neurometabolic disorder. As the etiology of the disease has not been properly established, a whole exome sequencing could be a possible next step in the management of the patient. The implications of the 4 deleted genes in human pathology have not been studied, but there are reports of patients with deletions of similar regions that present developmental delay and intellectual disability. This suggests a possible implication of this region in the neurodevelopmental process, but further research on animal models should be carried out. GPRIN2 could be a good candidate for future studies, as it has been associated with neurite outgrowth and branching.

Keywords: Neurometabolic disorder, CGH array, 10q11.22 region

A RARE CAUSE OF NEONATAL RESPIRATORY INSUFFICIENCY: CONGENITAL ACINAR DYSPLASIA

Tudor Hîrlea[1], Mădălina Lazăr[1], Dan Gheban[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Diffuse developmental lung disorders are a group of rare embryological abnormalities of the respiratory tract. Congenital acinar dysplasia is the most severe form in this group, characterized by cessation of lung development in the pseudoglandular phase, normally present during the 8-16 weeks of gestation. **Objective:** Our aim is to present a case of congenital acinar dysplasia, a rare cause of respiratory insufficiency at birth. **Material and methods:** The male infant was born on term as a result of an uneventful pregnancy. At birth, he was intensely cyanotic and unresponsive to oxygen administration. The case was interpreted as newborn respiratory distress syndrome. However, the infant did not respond properly to the administration of surfactant therapy. Following intubation and mechanical ventilation, the case evolved to respiratory acidosis and death in less than 24 hours. **Results:** At autopsy, the lungs had a normal weight, but a glandular and dense appearance, leading to the macroscopic diagnosis of lung dysplasia. During the microscopic evaluation of lung tissue samples, it became apparent that the acini contained only terminal bronchioles and few alveolar sacs, completely lacking alveoli. This confirmed the diagnosis of congenital acinar dysplasia. Alveolar septal edema, focal thromboses and biliary aspiration were also present. **Conclusions:** This case aims to present a rare cause of respiratory insufficiency in newborns, fewer than 50 cases of congenital acinar dysplasia being reported worldwide. As a result of the low incidence, the molecular basis of this disease is poorly understood. However, new studies suggest the implication of the following genes: TBX4, FGF10 and FGFR2. Further research is nonetheless necessary in order to provide a proper genetic counseling for the parents.

Keywords: Diffuse developmental lung disorders, Congenital acinar dysplasia, Neonatal respiratory insufficiency

SANFILIPPO SYNDROME TYPE A: DIAGNOSTIC MANAGEMENT AND IDENTIFICATION OF NOVEL MUTATION IN SGSH GENE

Ionuț-Gabriel Dumitru[1], Elena-Vanda Ciudin, Tudor Hîrlea[1], Simona Bucerzan[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Sanfilippo syndrome (Mucopolysaccharidosis type III) is a rare autosomal recessive disease caused by defects in lysosomal function. Depending on the affected gene, four etiopathogenetic types are identified: type A Sanfilippo syndrome (mutation in SGSH gene) is the most common and has the worst prognosis. It primarily affects the central nervous system and clinical features typically occur in young children. **Objective:** This report has two aims: 1)showcasing the diagnostic challenges presented by a patient suffering from a lysosomal storage disease and 2)emphasizing the possible implication of the mutation c.532C>G in SGSH gene in the development of type A Sanfilippo syndrome. **Material and methods:** We report the case of a 4-year-old boy presenting craniofacial dysmorphism (macrocrania with frontal and parietal bossing), skeletal malformations (pectus excavatum and dorsolumbar kyphosis) and impairment of psychomotor skills. Moreover, physical and ultrasound examination revealed hepatosplenomegaly. These findings raised suspicions of a mucopolysaccharidosis and thus the urinary glycosaminoglycans (GAGs) analysis and enzyme assay were carried out. **Results:** The clinical features and the elevated levels of GAGs in urine (dermatan sulfate and heparan sulfate) contrasted with negative enzyme analysis. As a result of this discordance, Invitae Comprehensive Lysosomal Storage Disorders Panel was indicated and showed a heterozygous genotype: one pathogenic variant (c.220C>T) and one variant of uncertain significance (c.532C>G). This confirmed the diagnosis of type A Sanfilippo syndrome. **Conclusions:** This case highlights the essential steps in diagnostic management of a pediatric patient presenting with dysmorphism and loss of previously acquired psychomotor skills. There are 137 pathogenic mutations of the SGSH gene known to cause type A Sanfilippo syndrome, however c.532C>G mutation has not been described in the scientific literature. This calls for further research in order to establish the causality. There is no consensus treatment for this pathology, but recent studies suggest promising results of Enzyme Replacement Therapy with recombinant human heparan-N-sulfatase (rhHNS).

Keywords: Sanfilippo syndrome, Mucopolysaccharidosis, c.532C>G mutation in SGSH gene

BLASTIC PLASMACYTOID DENDRITIC CELL NEOPLASM: DIAGNOSTIC AND THERAPEUTIC MANAGEMENT

Ionuț-Gabriel Dumitru[1], Elena-Vanda Ciudin, Oana-Adela Mesaroș[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Blastic plasmacytoid dendritic cell neoplasm (BPDCN) is a rare hematological malignancy that primarily affects the skin. Due to its high tendency of dissemination, patients have a poor outcome. **Objective:** This presentation has two aims: 1)raising awareness of BPDCN as a differential diagnosis of acute leukemia or skin lymphoma and 2)showcasing the difficulty of choosing a personalized treatment for these patients. **Material and methods:** We report the case of a 63-year-old male known with psoriasis. He presented with polymorphous skin lesions in different evolutionary stages (erythematous, papulosquamous, bruise-like patches and brown-purplish nodules) that were located on the head, torso and extremities. The lesions appeared 7 months prior to his admission and were associated with axillary lymphadenopathy and hepatosplenomegaly. These features raised suspicions of cutaneous lymphoma and a skin biopsy was performed. Complete blood count showed pancytopenia while the peripheral blood smear revealed blastic cells. A medullary aspirate and biopsy were carried out. **Results:** The medullary aspirate and biopsy showed 90% blastic infiltrate, with CD4+/CD56+/CD123+/CD3-/CD20- immunophenotype, which permitted the diagnosis of BPDCN. The patient opted for less aggressive chemotherapy, with dexamethasone and vincristine, with a good clinical and hematological response. The therapy was continued for a total of eight months until the loss of response to treatment appeared. DeVic regimen (dexamethasone, etoposide, ifosfamide, carboplatin) was initiated as the second line of therapy, with an unfavourable outcome. **Conclusions:** This case highlights a rare type of acute leukemia with disseminated skin lesions. Recent studies find anti CD123 monoclonal antibodies, BCL2 or PD1 inhibitors therapies as a preferable alternative to aggressive chemotherapy. However, further research is needed in order to identify more efficient targeted therapies. Consolidation with allogeneic stem cell transplantation should also be taken into account, as the overall survival of the patients could be increased.

Keywords: Blastic plasmacytoid dendritic cell neoplasm (BPDC, Acute leukemia, anti CD123 monoclonal antibodies

PARENTHOOD AND SELF-MEDICATION IN CHILDREN IN PRAHOVA COUNTY

Mihaela Andreia Condrea[1], Gabriel Daniel Danilescu[1], Magdalena Cozan[1], Ionut Dragoi[1], Andreea-Marilena Sima[1], Daniela-Edith Ceană[1]

[1]UMFST Tîrgu Mureş

Background: Inadequate self-medication in children can lead to serious consequences unless specialized medical indications are not being taken into consideration. Lack of a certain diagnosis, of a certified source of information, incorrect dose administration are only a few of the facts that could harm the health condition of the children involved. **Objective:** The objective of the study is to analyse the attitude of parents in Prahova County towards self-medication in their children. **Material and methods:** This is a descriptive, transversal study in which 300 parents took part. The selection criteria represents participants who have children aged between 0 and 18 years old. Parents were provided an anonymous, virtual questionnaire. The questions addressed were supposed to evaluate parent's consciousness of self-medication. Data was processed using Microsoft Office Excel tables and statistically evaluated using Chi-Square Test with a level of significance of $p<0.05$. **Results:** 25% of the parents affirmatively responded that they practice self-medication for their whole family, while 29% claimed that they take care of the health situation of their children by themselves and choose to call for medical care only if the symptoms worsen. Some of the most frequent symptoms that are being taken care of at home are: flu-like, gastro-intestinal and allergy symptoms. The correlation between self-medication and the age of the parents ($p=0,059$), living environment ($p=0,85$) and family income ($p=0,31$) showed that there is no statistical significance between demographic criteria and children's self-treatment. Furthermore, the interdependence between self-medication and children's age has proven no statistical significance, having a p value of 0,22. **Conclusions:** The relatively high prevalence of parents that attempt to self-medicate their children in order to ease their symptoms must raise concern. Any mild symptom could worsen if the medication is not properly used. Consequently, the population must be educated regarding the risks and benefits of self-treatment in order to avoid the eventual harm.

Keywords: Self-Medication, Children, Parents, Risks

NEUROINTERVENTIONAL TREATMENT IN STROKE

Adrian Vlad Pop[1], Raluca Maria Popa[1], Teodora Maria Denisa Popa[1], Cosmin-Valentin Dragomir[1], Gheorghe-Marian Rotariu, Lucian Marginean[1], Mircea Marian Buruian[1]

[1]UMFST Tîrgu Mureş

Background: Ischemic strokes are caused by a sudden obstruction of one ore multiple cerebral arteries, resulting in a sudden decrease of bloodflow to a certain territory of the brain causing an acute focal neurologic deficit. There are different treatment options of such pathology, the most modern one being the endovascular treatment. **Objective:** The main goal of our study was to establish the results of stroke patients treated using various endovascular techniques **Material and methods:** In the study were included patients with acute ischemic stroke from the County Emergency Hospital from Târgu-Mureș, treated using endovascular methods in 2020 and the beginning of 2021. We looked for how much time passed from the onset of the symptoms to the beginning of the intervention (a mean of 320 minutes) and until the recanalization of the obstructed artery (a mean of 395 minutes) , the obstructed artery, as well as the age and gender of the patients. The TICI score was used to grade the outcome of the treatment. Out of 45 patients, 26 were male and 19 were female, with an average age of 65 years. The occlusion was in the middle cerebral artery in 26 cases, basilar/vertebral artery in 8 cases and the internal carotid artery in 10 cases **Results:** The results show that after the endovascular treatment 26 patients (57,78%) were given a TICI score of 3, 11 patients (24,44%) of 2b, 4 patients (8,8%) of 2a, and in just 3 cases the recanalization was unsuccessful and in one case the procedure was abandoned. **Conclusions:** The endovascular treatment in stroke patients is the most efficient, a successful reperfusion being achieved in more then 82% of the cases including those with a TICI score of 2b or 3, and in less then 8% of the cases was not obtained a meaningful recanalization.

Keywords: Stroke, TICI, Neurointerventional

OCULAR MUCOUS MEMBRANE PEMPHIGOID IN DISGUISE: A CASE OF AN UNUSUAL DRY EYE

Mădălina Lazăr[1], Antonia Ruzsa, Ovidiu Samoilă[1], Lăcrămioara Samoilă[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Ocular Mucous Membrane Pemphigoid (OcMMP) is a rare autoimmune disease that affects the conjunctiva and leads to chronic scarring through a type 2 hypersensitivity reaction. Due to its rarity and nonspecific symptoms, OcMMP is usually diagnosed with a delay of 2.5-10 years, leading to irreversible visual loss. **Objective:** This case report aims to highlight the importance of early diagnosis of OcMMP in order to initiate the appropriate treatment. **Material and methods:** A 79 year-old male presents to the Ophthalmology Clinic with bilateral red eye, dryness and intense foreign body sensation a few weeks after bilateral cataract surgery. The established diagnosis was surgery-induced dry eye syndrome and topical treatment with artificial tears was initiated. Despite the treatment, 6 months later, the visual acuity of the patient started to drop. Clinical examination, Schirmer test, salivary gland biopsies and conjunctival biopsies were performed. **Results:** The clinical exam showed perikeratic congestion, corneal ulcer, visible corneal vascularisation and forniceal conjunctival fibrosis. Schirmer test was 0 mm, indicative of severe dry eye. Given this severe xerophthalmia, Sjogren syndrome was suspected but the salivary biopsies and the serology dismissed the suspicion. Conjunctival biopsy was indicative of mucous membrane pemphigoid. Both topical and systemic treatment with immunosuppressants was initiated. The symptoms began to ameliorate 4 weeks after systemic Azathioprine administration. Visual acuity stabilized at 4/50 in the left eye and 1/50 in the right eye. **Conclusions:** This may be the first report of ocular mucous membrane pemphigoid presenting after cataract surgery. The clinician should take OcMMP into account as a differential diagnosis of a dry eye accompanied by visual impairment. In our case, the diagnosis was established less than 1 year after the first symptoms appeared, a rather early time compared to the average. More in-depth research concerning anti-cytokine therapies could lead to the development of more specific treatment options.

Keywords: Ocular Mucous Membrane Pemphigoid, cataract surgery complications, severe dry eye

WHY SO MOODY? A RARE CASE OF A 17Q12 DELETION SYNDROME

Mădălina Lazăr[1], Tudor Hîrlea[1], Ionuț-Gabriel Dumitru[1], Diana-Laura Miclea[1], Maria Miclăuș[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: 17q12 deletion syndrome is a rare autosomal dominant syndrome which involves the deletion of a series of genes, including the HNF1B gene. Mutations in HNF1B lead to Maturity Onset Diabetes of the Young type 5 (MODY 5) which usually presents as cystic renal disease, diabetes with onset before the age of 25 and other developmental abnormalities. Undiagnosed diabetes, including MODY 5, results in chronic hyperglycemia that entails irreversible end-organ damage. **Objective:** The aim of this report is to present a rare case of a 17q12 deletion syndrome which enabled early diagnosis of diabetes, thus highlighting the importance of genetic testing. **Material and methods:** We present the case of a 7 year-old girl admitted to the hospital for periodic evaluation. She has been known to have 17q12 deletion syndrome for 4 years. Her phenotype comprises craniofacial dysmorphism, small stature, intellectual disability and speech delay. The patient also presents cortical renal cysts. Lab tests, echocardiography, abdominal ultrasound and cerebral MRI were performed. **Results:** Her lab results show hypomagnesemia and hyperglycemia that were not present at the last checkup. The glycemic values are suggestive of diabetes mellitus. Echocardiography revealed a previously undiagnosed patent foramen ovale while abdominal ultrasound showed moderate dilatation of the right renal pelvis, cortical renal cysts and angiolipomas. **Conclusions:** This report shows a case of diabetes mellitus diagnosed in early phase, before the development of microvascular complications that normally occur with delayed diagnosis. The clinician should consider MODY in young people who present with signs and symptoms of diabetes. This is relevant because, unlike type 1 diabetes, MODY can be kept under control with oral hypoglycemic drugs instead of insulin. Given the high number of genes deleted in 17q12 deletion syndrome, further research is needed for a better understanding of the exact function of those genes and their correlation with the observed phenotype.

Keywords: Maturity Onset Diabetes of the Young type 5, 17q12 deletion syndrome, HNF1B gene, cystic renal disease

THE RELATIONSHIP BETWEEN DEPRESSIVE SYMPTOMS AND ETHANOL ABUSE AMONG YOUNG STUDENTS

Marius-Cătălin Cosma[1], Andreea-Georgiana Nan[1], Anda-Nicoleta Nan[1], Munteanu Rareș, Andreea Salcudean[1]

[1]UMFST Tîrgu Mureş

Background: It is nowadays known that depression and abusive ethanol consumption represent one of the most encountered comorbid association worldwide. For the last decade, an alarming ascending trend has been observed regarding the incidence of the two pathologies among young students. Finding a causal relationship, as well as the main risk factors for developing depression and harmful alcohol use represent the targets for the prevention and treatment of these illnesses. **Objective:** We wanted to determine the prevalence of depressive symptoms and abusive alcohol consumption among young students, as well as the demographic particularities of the studied group. **Material and methods:** We performed a descriptive transversal study during February 2021-March 2021. The analysed data was based on a survey containing 32 questions grouped in 3 sections: demographic information, 8 questions structured interview based on DSM V depression criteria and Depressive and Somatic Symptoms Scale, 18 questions structured interview regarding alcohol intake using the DSM V diagnosis criteria for alcohol use disorders. The survey was spread through different social media groups of students located in Targu Mures. 197 student respondents were eligible for the study. Microsoft Excel was used for descriptive statistics. **Results:** The gender distribution indicated a predominance of female student respondents (80%) . Most of the students (75,4%) were from urban areas. 96% of the students confirmed that they had at least one depressive symptom. 50% had somatic/vegetative symptoms related to their mood. Considering the alcohol use, we noticed that 90% of the respondents confirmed the alcohol intake of which 27% matched the DSM V criteria for alcohol use disorder. All of the students with alcohol use disorder (27%) had at least one depressive symptom. **Conclusions:** Depressive symptoms are frequent among young students. Alcohol beverages are commonly used by university students. Students with alcohol use disorders are more likely to have depressive symptoms.

Keywords: depression, alcohol abuse, students

ASSOCIATION OF SOMATIC COMORBIDITIES IN PATIENTS WITH SCHIZOPHRENIA

Andreea-Georgiana Nan[1], Marius-Cătălin Cosma[1], Anda-Nicoleta Nan[1], Andreea Salcudean[1]

[1]UMFST Tîrgu Mureş

Background: Even though schizophrenia is known to be a serious and debilitating psychiatric disease, the high mortality of the illness is caused in more than 50% of cases by the associated somatic comorbidities. Antipsychotic medication and lifestyle changes such as poor diet or substance abuse are known to be the underlying causes in developing somatic comorbidities. **Objective:** The aim of this study is to determine the characteristics of schizophrenic patients with somatic comorbidities as well as the most frequently encountered somatic disorders. **Material and methods:** We conducted a retrospective descriptive study including the patients diagnosed with schizophrenia and affected by at least one somatic comorbidity, admitted between 01.2019- 09.2020 in The Department of Psychiatry at Clinical County Hospital of Targu Mures. 97 patients were included in the study. IBM SPSS Statistical Package was used to perform descriptive statistics. **Results:** Regarding the gender distribution, 74% of the patients were females, and only 26% were men. The mean age was 49 years, and 91% of the patients were disability retirees. Demographic distribution indicated that 59% of the patients were residents of urban areas. Low rates of smoking (38%) and alcohol consumption (19%) were observed. 71% of the patients had a BMI over 24,99. More than half of the patients suffered from cardiovascular diseases. Hypertension was present in an alarming percentage of patients (31%). Endocrine, nutrition and metabolic illnesses affected 47% of the patients. The high prevalence of schizophrenic patients with gastro-intestinal disorders (27%) should not be omitted. Considering the high rates of atypical antipsychotic medication intake (91%), we noticed that 69% of these patients had a BMI over 24,99. **Conclusions:** Schizophrenic patients with somatic comorbidities have low rates of employment. Overweight and obesity have high prevalence among this group of patients. Cardiovascular morbidity is a burden for schizophrenic patients.

Keywords: schizophrenia, somatic comorbidities, obesity, cardiovascular disease

CLINICAL MANAGEMENT OF POSTPARTUM SPONTANEOUS DISSECTION OF THE LEFT DESCENDING CORONARY ARTERY CAUSING NON-ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION: A CASE REPORT

Maria-Andreea Micu[1], Irina Ioana Iurian[1], Andreea Botezan, Patrick Lazar Dominik Chiciudean, Adrian-Alexandru Iliescu[1], Theodora Benedek[1]

[1]UMFST Tîrgu Mureş

Background: Acute coronary syndrome is a relatively rare occurrence for women under the age of 40 without any cardiovascular risk factors. However, during pregnancy or in the postpartum period, the likelihood is shown to be increased due to several hormonal imbalances and hypercoagulability. One of the causes is known to be the spontaneous coronary artery dissection, a life threatening, non-atherosclerotic pathological entity, that has been correlated with genetic connective tissue diseases or other vascular conditions. **Objective:** Its symptoms may vary regarding to the region of the culprit lesion and to the grade of occlusion, facts which determine also a variety in the clinical approach of the condition. This underlines the necessity of sharing and understanding the uncommon cases of spontaneous coronary artery dissection and their therapeutical management. **Material and methods:** Thus being said, we want to present the case of a 38 years old woman with a full term pregnancy and caesarean section delivery 4 months prior to having a hypertensive crisis and accusing symptoms of myocardial ischemia, with no significant personal cardiovascular risk factors. **Results:** The patient has been diagnosed with spontaneous dissection of the left descending coronary artery only by emergency coronary angiography. The first logical assumption of aortic dissection has been disproved by computed tomography angiogram. **Conclusions:** The unpredictable development of the condition in the specific context of the postpartum period makes this proposed case worth further consideration.

Keywords: Spontaneous coronary artery dissection, Postpartum, Acute coronary syndrome, Myocardial ischemia

IMPACT OF COVID-19 AND LOCKDOWN ON CHILDREN WITH ADHD

Pricope Stefana[1], Marius Pata[1], Elisabeta Szabo-Racos[1]

[1]UMFST Tîrgu Mureş

Background: Attention deficit/hyperactivity disorder (ADHD) is one of the most common mental disorders affecting children and often continues into adulthood. The condition has multifactorial etiology and is characterized by a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development. It's often accompanied by neuropsychiatric comorbidities such as learning disabilities, conduct disorder, anxiety disorders, Tourette's disorder, oppositional defiant disorder, autism, language disabilities. **Objective:** The aim of the paper is to offer a comprehensive view of the impact of the COVID-19 pandemic on the mental health of children and adolescents, with specific reference to the difficulties encountered. **Material and methods:** In this paper we analyzed current data from the literature, more precisely articles based on online surveys and questionnaires filled by the child and his parents, focusing on children diagnosed with ADHD before the COVID pandemic and the impact of lockdown and social isolation on their mental health, including worsening symptoms of ADHD. **Results:** Reviewing the current literature we found that children experienced the positive and also the negative impact of the lockdown. On one hand, the analysis showed an improvement of children's anxiety and self-esteem (according to the parents) linked with a lesser exposure to negative feedback and also related to flexible schedules. On the other hand, children experienced worsening of general well-being manifested as oppositional/defiant attitudes and emotional outbursts. The parents also mentioned sleep pattern disturbances, worsening of ADHD symptoms, and motivation problems. Children were found to be suffering from anxiety, depression, and irritability. **Conclusions:** Children appear to be spared of the worst physical health consequences of the SARS-CoV-2 infection, but there is a significant risk of serious and persistent damage to their mental health. Children with mental disorders are severely affected by the pandemic lockdown and school dropout occurred during the early months of the pandemic

Keywords: ADHD, lockdown, COVID-19, mental health

OBSESSIONALITY AMONG MEDICAL STUDENTS IN CLINICAL YEARS

Magdalena Cozan[1], Lorena Mihaela Muntean, Mihaela Andreia Condrea[1], Andreea-Marilena Sima[1], Aurel Nireștean[1], Emese Erika Lukacs[1]

[1]UMFST Tîrgu Mureş

Background: Structural obsessionality and the symptomatic one are intertwined one with the other on an insecure, uncertain and ambivalent territory. Obsessive-compulsive personality traits have a significant influence on the professional role, both in adaptative and maladaptative way. **Objective:** The study aims to assess obsessive symptoms and features among medical students, their interference with students role and the impact over them. **Material and methods:** The cross-sectional, descriptive and analytical study included a total of 191 medical students in clinical years from George Emil Palade University of Medicine, Pharmacy, Science and Technology of Târgu Mureș. They received a questionnaire which aims personality assessment, evaluates the presence of obsessive symptoms and particularities of functioning in relation to them. **Results:** It stands out that the obsessive-compulsive personality traits were found in most medical students (73%). 39% of participants reported obsessive symptoms, most of them also having obsessive-compulsive personality features (85%). Additionally, the association between personality traits and symptoms was statistically significant ($p=0.0017$). Furthermore, the simultaneous presence of obsessive symptoms and obsessive-compulsive personality traits was statistically significant correlated with the following aspects: concentration difficulties during exam session ($p=0.0011$), poor time management ($p<0.0001$) and reluctancy giving medical consultations to patients with poor hygiene or patients known as having an infectious or contagious disease ($p=0.0463$). **Conclusions:** Obsessionality is found in a high percentage among medical students. The simultaneous presence of obsessive symptoms and personality traits from the same field is a dysfunctional factor under stress conditions, in uncertain and overload situations. It interferes with the concentration ability, time planning and with the quality of medical services.

Keywords: obsessionality, personality traits, obsessive symptoms, medical students

COMPLICATED CROHN'S DISEASE WITH UNPROVED COMPLICATION - A CASE REPORT

Mihail Tănăsescu[1], Attila Szakacs[1], Anda-Elena Păcurar, Ana-Maria Sărăcuț, Iuliana Romașcan, Olga Hilda Orășan[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Crohn's disease is an inflammatory bowel disease affecting any segment of the digestive tract, from the mouth to the rectum. The main symptoms a patient may present are weight loss, abdominal pain, diarrhea and anemia. Patients are prone to develop enteroenteric fistulas, or fistulas between the intestine and adjacent organs. Lifelong biological therapy is indicated alongside other anti-inflammatory medication to keep the disease under control. **Objective:** The aim of our case report is to present the contradiction between a Crohn's disease patient's complaints of fecal emissions through the vagina and the paraclinical investigations results. **Material and methods:** A 46-years-old female patient, having a background of Crohn's disease for 20 years with a treated rectovaginal fistula, third degree hypertension and third degree obesity, was admitted to the gastroenterologist complaining of fecal emissions through the vagina, abdominal bloating, rectorrhagia, hypogastric pain, insomnia and herpes zoster. She undergoes treatment with Vedolizumab and Mesalazine, together with antihypertensive drugs. Further investigations were made in order to evaluate the possible causes of Crohn's disease reactivation and a presumed newly formed rectovaginal fistula: blood test, HIV, HBV, HCV, EBV, CMV and TB serology, *Clostridium difficile* test, abdominal echography, colonoscopy, CT scan, MRI, colon biopsy and Crohn's Disease Activity Index (CDAI). **Results:** The blood test revealed an inflammatory syndrome: elevated CRP, fibrinogen and erythrocyte sedimentation rate. There was negative serology for viral infections, TB and *Clostridium difficile*. The abdominal echography, colonoscopy, CT scan and MRI did not reveal any active rectovaginal fistula. The biopsy showed no signs of active disease. CDAI score was 42,6. **Conclusions:** The results were contrasting with the patient's complaints, therefore a gynecological assessment should be done in order to find the cause of the presumed fecal emissions. A psychological cause of the symptoms should also be considered.

Keywords: Crohn's disease, rectovaginal fistula, psychological factors, CDAI score

N-TERMINAL PRO–B-TYPE NATRIURETIC PEPTIDE PROVIDES SIMILAR PREDICTIVE VALUE AS MAJOR CLINICAL SCORES FOR 1-YEAR MORTALITY IN ACUTE CORONARY SYNDROME TREATED BY PERCUTANEOUS CORONARY INTERVENTIONS

Dragoș Șulea[1], Emanuel-David Anitei[1], Răzvan-Mihai Cărpușor[1], Ioana-Paula Șulea, Paul Călburean[1], Klara Brînzaniuc[1]

[1]UMFST Tîrgu Mureş

Background: Acute coronary syndrome (ACS) has an annual incidence estimated at 1.5% and a 1-year mortality rate estimated at 12%. Major scores have been developed to predict long term mortality, such as GRACE, ACEF or SYNTAX score. However, the predictive value of the N-terminal pro □□□□□□ natriuretic peptide (NT-proBNP) has not yet been investigated. **Objective:** Our objective was to compare 1 year mortality prediction of NT-proBNP with major validated clinical score such as GRACE, modified ACEF and clinical SYNTAX. **Material and methods:** Consecutive patients hospitalized between January 2016 to December 2020 at the Emergency Institute for Cardiovascular Diseases and Transplantation of Târgu Mureș with diagnosis of ACS and treated by PCI were retrospectively selected. Of those, patients with additional NT-proBNP determination were included. **Results:** A total of 306 patients were included, of which 197 (64%) were males, with a median age of 67 (21 □ 98) years. 1-year mortality was 13% (41 patients). Median NT-proBNP was 7912 (2865 - 25337) pg/mL in patients who died, while median NT-proBNP was 428 (109 □ 1750) pg/ml in patients who were alive at 1-year (p<0.0001). The area under the ROC curve for ACEF score was 0.812 (0.668-0.957), for GRACE score was 0.814 (0.682-0.947) and for clinical SYNTAX score was 0.783 (0.637-0.930). The area under the ROC curve for NT-proBNP was 0.816 (0.755-0.917) and was non-inferior to the previous ones (p=0.001). **Conclusions:** The serum levels of NT-proBNP provides similar predictive value for 1-year survival rate in patients who suffered an ACS and were treated by PCI when compared to major clinical scores. NT-proBNP could be integrated in clinical scores to improve long-term survival prediction.

Keywords: acute coronary syndrome, n-terminal pro–b=type natriuretic peptide, percutaneous coronary intervention

THE DELICATE STABILITY OF AN ELDERLY PATIENT WITH MULTIMORBIDITY

Adela-Maria Cîdu[1], Alexandra Lipan[1], Maria Mihaela Godun[1], Gabriel-Ștefan Butnărică[1], Cristian-Marian Bobârcă[1], Gabriela Dumitrescu[1], Luminița Gina Vâță[1]

[1]UMF Gr. T. Popa Iaşi

Background: The balance between the atherothrombotic and hemorrhagic risk of an elderly patient with a history of cardio-vascular and respiratory diseases is always a challenge. **Objective:** The purpose of this paper is to highlight the evolution and therapeutic challenges of an elderly patient with a medical history of bilateral bronchiectasis and pulmonary aspergillosis, presented for an acute respiratory failure and fever in the era of COVID-19. **Material and methods:** The patient, an 82-years-old female, with a history of cardiovascular (stage 3 hypertension, chronic heart failure NYHA Class II) and respiratory diseases (bilateral bronchiectasis, pulmonary aspergillosis) was admitted to the emergency room with symptoms of severe acute respiratory syndrome, with a negative RT-PCR test for SARS-CoV-2 infection. The clinical, biological and radiological finding confirmed the diagnosis of bacterial superinfection associated with bronchiectasis exacerbation. The sputum analysis identified a gram-negative bacteria- Pseudomonas aeruginosa. The patient received treatment with antibiotic, mucolytic, corticoid, bronchodilator and was prescribed heart failure medications. Her evolution was, initially, favourable. **Results:** During the hospitalization, the patient's condition continued to deteriorate, with hemoptoic sputum coughing, a decrease in hemoglobin concentration (6,4 g/dl) and symptoms of cardiac asthma, leading to a sudden aggravation of her general condition. Echocardiography revealed severe degenerative aortic stenosis (Vmax= 4.53 m/s). The treatment consisted of volemic deficiency rebalance, adjustment of cardiac therapy and anemia correction. **Conclusions:** Considering the older age, the cardiovascular pathology, the recurrent respiratory infections and the severe anemia, this patient's case requires a multidisciplinary approach and a permanent update on her therapy.

Keywords: elderly patient, multimorbidity, bronchiectasis, aortic stenosis

TRAITS AND DIMENSIONS OF PERSONALITY AS PREDICTORS OF WELL BEING IN MEDICAL DOCTORS

Gabriel Daniel Danilescu[1], Ciprian Rares Paroiu[1], Mihaela Andreia Condrea[1], Ionut Dragoi[1], Elena Andreea Mănescu[1], Aurel Petru Nireştean[1]

[1]UMFST Tîrgu Mureş

Background: The concept of "well-being" has become increasingly popular both in the social psychology and the corporate society. Understanding how well-being is influenced by internal or external factors has been a focus in research in the last years. Personality dimensions described by the "Big Five" model as well as categorical traits such as narcissistic ones may have a certain influence on the subjective well-being. **Objective:** The main objectives are to assess the relationship between personality dimensions and narcissistic traits and to determine their predictictiveness regarding subjective well-being. **Material and methods:** The study included 148 resident physicians, specialists and primary care physicians aged between 25 and 65 years. Data were obtained by completing an online anonymous questionnaire. The personality dimensions were evaluated according to the Big Five model and narcissistic traits as predictors of well-being. The designed linear regression models included the total NPI score, the NPI subdomain scores, the WHO5 score, the DECAS score, controlling for demographic variables, professional grade and specialty. **Results:** Assessing personality dimensions as predictors of well-being, both emotional stability ($p<0.001$, $F=16.03$, Adj $R=0.25$) and extraversion ($p<0.001$, $F=16.03$, Adj $R=0.25$) were responsible for 25.5% of the WHO5 score variation. The linear regression model shows that the total NPI score does not significantly predict well-being, however one of the subdomains of the NPI score, the superiority / arrogance subdomain, is responsible to a small extent of 2.9% for the "well-being" variation. **Conclusions:** Taking into consideration the results of the study, both some of the personality dimensions, more precisely the emotional stability and extroversion, and the subdomain of the NPI score, superiority / arrogance are positively correlated with the subjective well-being.

Keywords: narcissistic traits, BIG FIVE, NPI, well-being

ESOPHAGEAL ACHALASIA- CLINICALLY QUESTIONABLE, IMAGISTICALLY OBVIOUS

Dora Cordaș[1], Ana-Ștefania Solomon[1], Andrei Olteanu[1]

[1]UMF Gr. T. Popa Iaşi

Background: Achalasia is a major esophageal motility disorder associated with insufficient or absent relaxation of lower esophageal sphincter (LES) along with gradual disappearance of peristalsis at this level. Whereas thus far its etiology has not been elucidated completely, this disorder may be considered a rare multifactorial disease as a whole, with a peak incidence between 30-50 years old. **Objective:** Our aim is to present a case that not only sheds light on a rare disease, but also manifests itself in the absence of a core symptom- dysphagia. **Material and methods:** Patient aged 41- comes to gastroenterology section with nocturnal acid regurgitations, pyrosis, and dry cough, without any complaints of dysphagia (acknowledged as a central symptom of the disease in question). The pathological history includes a duodenal ulcer and a diagnosed Helicobacter pylori infection, for which the patient tested negative after two months. Clinical exam highlights good general state, painless abdomen, present bowel movement and normal stools. We suspect Gastroesophageal Reflux Disease, but we also conduct imaging exams. **Results:** Esogastroduodenal X-ray shows a completely dilated esophagus, a distal segment with an appearance consistent with achalasia (axial, symmetrical and short LES stenosis) and difficult gastric filling, with normal gastric relief. The endoscopic exam rules out other disorders and shows the dilation of the esophagus accompanied by remnant food residue, punctiform LES and- through retroflexion- the gastroesophageal junction shows no neoplasia. Four biopsy samples are taken from the mucosa; microscopically, they display morphological signs of chronic esophagitis, thus excluding the suspicion of eosinophilic esophagitis. The patient undergoes a first session of pneumatic dilation (completed without incidents and significantly ameliorating his condition). **Conclusions:** Whereas achalasia is a rather uncommon disease, an incomplete clinical picture should not rule it out; imaging evaluation is a decisive step in the diagnosis and subsequent treatment of this disorder.

Keywords: esophageal achalasia, chronic esophagitis, esogastroduodenal X-ray

CAVERNOUS TRANSFORMATION OF THE PORTAL VEIN: A RARE CONSEQUENCE OF PORTAL VEIN THROMBOSIS

Atamyrat Bashimov[1], Eliza Bob, Roxana Bolchiș[1], Andrea-Alexandra Bance[1], Cristina Maria Sabo[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Cavernous transformation of the portal vein (CTPV) is a rarely reported complication of portal vein thrombosis (PVT). On the other hand, PVT is a common sequel of liver cirrhosis. Because of chronic obstruction of the portal lumen, a network of collateral vessels forms to bypass the thrombus, which leads to the development of the cavernoma. Frequent symptoms are due to the exacerbation of portal hypertension in cirrhotic patients. **Objective:** This study aims to emphasize the importance of early and correct aetiological diagnosis in patients with decompensated cirrhosis. **Material and methods:** We present the case of a 58 year-old man who has been suffering from Hepatitis B virus cirrhosis for 3 years and undergoes antiviral therapy. Although he had developed esophageal, gastric and anorectal varices with intermittent hematochezia and splenomegaly with pancytopenia, the evolution of his disease has been relatively stable. On his last regular check-up he presented with jaundice, ascites, fatigue and loss of appetite. On physical exam, collateral circulation was visible on the abdomen and multiple thoracic telangiectasia were present. A decompensation of cirrhosis was suspected. **Results:** Laboratory workup revealed hepatic cytolysis syndrome (ALT=116U/L, AST=180U/L), cholestatic syndrome (Total Bilirubin=4.8 mg/dl), ALKP=223 U/l, GGT=670 U/l) and hypoalbuminemia (Albumin= 3.1 g/dl). AFP value was slightly elevated and the ultrasonographic examination showed a hypoechogenic area in the liver. To exclude a possible hepatocellular carcinoma (HCC) and reveal the aetiological cause behind the decompensated cirrhosis MRI scan with contrast was performed. It revealed extended PVT and CTPV with secondary hepatic parenchymal and vascular modifications. Low molecular weight heparin (LMWH) therapy was initiated. **Conclusions:** PVT, and not HCC, was demonstrated through MRI to be the cause of decompensation and it lead to an unusual pathology - CTPV. In this case, LMWH therapy was introduced to avoid extension of the thrombus and prevent severe possible complications.

Keywords: cavernous transformation of the portal vein, portal hypertension, liver cirrhosis, anticoagulants

HEREDITARY SPASTIC PARAPLEGIA - A SILENT ENEMY DIFFICULT TO DIAGNOSE

Gheorghe Eduard Marin[1], Codrin Burlacu, Roxana-Maria Radu, Vitalie Văcăraș[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Hereditary Spastic Paraplegia (HSP) HSP is part of the heterogenous group of neurodegenerative disorders, characterized by progressive degeneration of corticospinal and proprioceptive fibers. Clinical key features of this disease include muscle spasticity of lower limbs, pyramidal weakness and extensor plantar reflex responses, related to gait impairments. **Objective:** Given the rarity of HSP, the significant genotypic-phenotypic variations and the adult onset with a slow progression, this disease is often misdiagnosed or undiagnosed for long periods of time. We present this report in order to clarify some of the more common symptoms of the pure form of HSP and possible differential diagnoses, and at the same time to increase awareness of the importance of genetic counseling and patient monitoring for possible complications. **Material and methods:** We present the case of a 54-year-old male patient admitted to the neurology department with gait disorders, sensory impairments and muscle weakness. The patient reported the neurological symptoms four years ago, when a subsequent brain MRI revealed no significant neurological changes. Neurological examination revealed a bilateral Babinski sign, bilateral symmetrical brisk, plantar paresthesia, decreased vibration sense in the lower limbs. Nerve conduction studies on electromyography were normal, whereas evoked motor potentials were delayed for the lower limbs. Paraclinical investigations (normal levels of vitamin B12 and CRP, negative HIV and Lyme disease tests) and normal neuro-imagistic findings (spinal and brain MRIs) excluded other pyramidal syndromes. **Results:** The clinical features, validated by paraclinical investigations, support a diagnosis of "pure form HSP".Kinetotherapeutic rehabilitation and palliative treatment with Cerebrolysin, B complex vitamins, Neurovert, and a myorelaxant were recommended. **Conclusions:** Genetic counseling and testing play a key role in an early diagnosis, alongside with an effective motor rehabilitation process for the established disease.

Keywords: Pyramidal Syndrome, gait disorders, pure form HSP

HUMAN PAPILLOMA VIRUS INVESTIGATED THROUGH HYBRID CAPTURE II EXAMINATION

Mădălina-Maria Mogan[1], Teodora-Lucia Moldovan[1], Toader Septimiu Voidăzan[1]

[1]UMFST Tîrgu Mureş

Background: Human Papilloma Virus (H.P.V.) is one of the most widespread and common sexually transmitted infection. If it is not detected and treated on time, it will lead to cervical cancer, which in Romania ranks on first place regarding the cause of mortality. **Objective:** The main purpose is to identify the correlation between the results obtained during the cytologic evaluation through Babes-Papanicolau test and the ones achieved with Hybrid Capture (H.C.) II, a less used method in our country, which is able to detect the H.P.V.-DNA. **Material and methods:** The study used is a retrospective one, which included 122 asymptomatic women with age from 30 to 50 years old. They have been presented at the gynecology routine consult, where the doctor collected vaginal samples on liquid medium in order to investigate and analyse the result obtained at Babes-Papanicolau test, and the ones reviewed with HC II. This less used technique aims to detect malign oncogenes such as: 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59 and 68. **Results:** They were qualitative ones, 43 of the pacients had positive results through H.C. II, which means 35,43%. From this amount, 23,25% presented abnormalities (atypical squamous cells) at Babes Papanicolau examination. **Conclusions:** Summarasing, I can underline the efficiency of the HC II method and the high number of positive pacients that the test had identified, despite the fact that in Romania it is less known and used. This examination should be taken into account with other clinical results for a proper treatment and for a greater life expectancy.

Keywords: H.P.V., H.C. II, cervical cancer

CHEMOTHERAPY INDUCED HEPATOTOXICITY IN ACUTE LYMPHOBLASTIC LEUKEMIA: A CASE REPORT

Ioan Octavian Fanea[1], Reka Borka-Balas[1]

[1]UMFST Tîrgu Mureş

Background: Hepatotoxicity following chemotherapy is a frequent adverse reaction especially in patients with preexisting liver dysfunction or who need higher doses and prolonged administration of chemotherapeutic agents. This effect is not always reversible, despite the cessation of the drug, potentially leading to cirrhosis. **Objective:** The purpose of this case report is to describe the complications of improper compliance of the patient to the chemotherapeutic standard protocols. **Material and methods:** We present the case of a 15-year-old male known with T-cell acute lymphoblastic leukemia (T-ALL) who did not follow the specific timetable of the treatment, had a poor compliance and, in turn, needed higher dosage and a longer period of chemotherapy. He was lost to follow-up before completing the protocol. The patient presented after three years in remission, but with severe pain in the epigastric and right flank regions, fever and palpitations. Laboratory analysis revealed extremely elevated levels of AST (377U/L), ALT (177U/L) and LDH (867U/L). Abdominal ultrasonography was performed and moderate ascites, severe hepatosplenomegaly and liver nodules up to 3 cm with calcifications were described. The patient was also tested HBs Ag positive. The abdominal CT scan revealed a 33/43/52 mm perihilar mass in the 6th liver segment invading the portal branch, which also presented thrombosis, while the thoracic CT presented multiple iodophilic bilateral nodules up to 13 mm. Adenophaty was present in the following regions: celiac, hepatic hilum, retroperitoneum, right lung hilum and subcranial. Hepatocarcinoma was suspected and liver biopsy was indicated. **Results:** Because of the cirrhosis and the extent of the hepatic malignancy the only available option was palliative treatment, the evolution being unfavorable. **Conclusions:** The particularity of this case consists in the cirrhosis that followed the hepatotoxicity induced by high and prolonged doses of chemotherapy associated with hepatitis B and it's evolution to hepatocarcinoma with lung metastasis in a teenager.

Keywords: Hepatotoxicity, Chemotherapy, T-ALL, Cirrhosis

CLINICAL AND ENDOSCOPIC FACTORS ASSOCIATED WITH HELICOBACTER PYLORI PANGASTRITIS - A RETROSPECTIVE STUDY

Dana-Marinela Postulache[1], Bianca Abalașei, Anca Negovan[1]

[1]UMFST Tîrgu Mureş

Background: *Helicobacter pylori (H. pylori)* being considered a class 1 carcinogen, early identification and evaluation of the extension and localisation of gastritis induced by infection represents an important element for a timely diagnosis and further therapeutic approach of gastric cancer. **Objective:** The study aims to identify associations of demographic (age, sex, social behaviours), clinical (symptoms, medication, associated chronical diseases) and endoscopic (haemorrhage, erosion, ulcers, other endoscopic changes) variables in patients diagnosed with *H. pylori* pangastritis in comparison with patients without infection. **Material and methods:** 344 patients performing an upper digestive endoscopy during 2015 - 2020 in the Medical Clinic II of the Emergency County Clinical Hospital in Târgu Mureș were included. We have gathered data from medical records, upper digestive endoscopy and histopathological reports. **Results:** There were not significant differences regarding the mean age of patients with *H. pylori* pangastritis (n=172) in comparison with patients without infection (n=172) on histological study (63.5years vs. 65 years, p=0.51), but male patients were more frequent in pangastritis group (58.7% vs.43.6%, p=0.006). Cardiovascular diseases were statistical significant more common in patients with *H. pylori* pangastritis (p=0,01) in comparison with patients with negative biopsies, while the rest of comorbidities were similar. Submucosal hemorrhages in the gastric body were significantly more common in patients with *H. pylori* pangastritis (p=0.0001), while changes in the lower esophagus (esophagitis, changes of Z line) were less common (p=0.01, OR: 0.56). Gastric polyps (irrespective of type) revealed also a negative association with *H. pylori* pangastritis in comparison with no infection (p=0.0018, OR: 0.27). **Conclusions:** *H. pylori* pangastritis detected histologically is more common associated with male patients, cardiovascular diseases and body petechiae on endoscopy. Endoscopic changes suggested by BRGE and gastric polyps are predictive for the absence of extensive *H. pylori* inflammation.

Keywords: H.pylori, pangastritis, endoscopy, cardiovascular

PREOPERATIVE ANXIETY IN CARDIAC SURGERY

Gabriel Rusu[1], Judit Kovacs[1], Mihaly Veres[1]

[1]UMFST Tîrgu Mureş

Background: Cardiovascular diseases are the most important cause of morbidity and mortality in modern countries.Global prevalence of depression is increasing in the last decades. Many studies have linked anxiety and depression with impaired postoperative rehabilitation after cardiac surgery. Also, increased mortality, postoperative complications and length of hospital stay, have been associated with various forms of anxiety, depression and preoperative stress. **Objective:** To highlight the association between anxiety and postoperative heart arrhythmia in postoperative period after open heart surgery. **Material and methods:** We have conducted a prospective observational study at The Institute of Emergency for Cardiovascular Diseases and Transplantation (IUBCVT) in Targu Mures between september 2020-february 2021.We included 54 patients scheduled for open heart surgery under cardiopulmonary bypass.For the evaluation of the preoperative anxiety we determined the DASS score. **Results:** Preoperative, 28 patients(51.85%) presented mild and moderate forms of anxiety. Preoperative anxiety was more common in patients with diabetes mellitus(50%), hepatic steatosis(42.85%), COPD(28.57%).Out of a total of patients, 67.4% developed atrial fibrillation postoperative($p<0.01$). We found a positive, statistical semnificative correlation between preoperative anxiety and postoperative atrial fibrillation($r=0.82$, $p=0.02$). **Conclusions:** Atrial fibrillation is a common complication among patients with preoperative anxiety.There is a pathophysiological association between anxiety and atrial fibrillation , especially because anxiety can activate the autonomic nervous system and trigger the arrhythmia.

Keywords: preoperative anxiety, depression, preoperative stress, atrial fibrillation

CLINICAL AND PARACLINICAL ASSESMENT OF PATIENTS WITH RELAPSING-REMITTING MULTIPLE SCLEROSIS TREATED WITH BETA INTERFERON FOR OVER A DECADE

Teodora-Lucia Moldovan[1], Ana-Maria Alexandra Muscalu[2], Mădălina-Maria Mogan[1], Rodica Bălașa[1], Laura-Iulia Bărcuțean[1]

[1]UMFST Tîrgu Mureş
[2]UMFST Tîrgu Mureș

Background: The clinical evolution of multiple sclerosis (MS) is unpredictable but the emerging use of disease modifying therapies (DMTs) has proven a decrease in disease's evolution and disability. Experimental identification of paraclinical biomarkers, such as chitinase-3-like-1 (CHI3L1) may play a role as a prognostic markers for MS evolution. **Objective:** The aim of this paper is to evaluate the clinical status and the CHI3L1 levels of relapsing-remitting MS (RR-MS) patients treated with Interferon beta-1b (IFNβ1b). **Material and methods:** We performed an observational, restrospective study that included 60 patients diagnosed with RR-MS, treated with IFNβ1b continuously for more than a decade. The patients were assessed based on their demographic and clinical data, annual relapse rate (ARR), disability in the moment the DMT was initiated and at inclusion, as per Expanded Disability Status Score (EDSS_0, EDSS_1). CHI3L1 levels were harvested in 29 patients with an EDSS_1≤2.0 and in 20 healthy controls (HC). **Results:** The mean age at MS onset was 30.98±7.85. A statistically significant decrease in the ARR before and after the treatment was started was noted ($p<0.0001$). A statistically significant increase in the EDSS was noted ($p=0.0003$), median EDSS_0: 2(0-6), EDSS_1: 2.5 (0-8). In the lot of patients with an EDSS_1≤2.0, there was no significant increase in the disability score ($p=0.582$). No statistically significant differences were noted when comparing CHI3L1 levels in MS patients with HC. **Conclusions:** The disability level hasn't significantly increased in the selected lot, suggesting that the patients either have a mild form of the disease or that they may be the ideal responders to IFNβ therapy. MS patients with an EDSS≤2.0, actively treated with IFNβ1b for more than a decade have similar CHI3L1 compared to HC. The search for serological biomarkers that can be used as predictive factors for MS evolution is ongoing and can open new fields of treatment approach.

Keywords: Multiple sclerosis, relapsing-remitting, beta interferon, chitinase-3-like-1

METASTATIC COLORECTAL CANCER AND ALZHEIMER'S DISEASE: MEDICAL APPROACH AND TREATMENT

Andreea Evelina Cimpoeru[1], Alexandra Chera, Mara Jidveian Popescu[1]

[1]UMF Carol Davila Bucureşti

Background: Colorectal cancer (CRC) is the fourth most frequently diagnosed cancer, with approximately 50% of patients developing liver metastases (CRLM). Although cancer has a low incidence as a comorbidity to Alzheimer's disease, its treatment must respect the former's risks. **Objective:** This presentation aims to describe the approach to treating a patient diagnosed with CRLM whilst having a medical history of Alzheimer's disease. **Material and methods:** This case reveals a 68-year-old female patient with a medical history of Alzheimer's disease, transient ischemic attack, cerebrovascular accident and gastric cancer history in a first-degree relative. She was brought to the emergency room with abdominal pain, severe bloating and intestinal motility disfunction. A computed tomography (CT) scan showed stenosing CRC with multiple regional lymph nodes and no evidence of supracentimetric tumor in distant sites. A laparoscopic right hemicolectomy, biopsy and mutation testing were performed, diagnosing a pT4aN1bMx mutant KRAS adenocarcinoma. Postoperative adjuvant chemotherapy with CAPEOX was selected and administered for 6 months, considering the patient's medical history and tumor genotype. She was also put under high-frequency CT surveillance. **Results:** A year later, a Positron emission tomography (PET) □□□ scan revealed metastatic progression, showing numerous peritoneal nodules, iliac lymphadenopathy and multiple liver lesions. A palliative approach was suitable - the new treatment of choice was CapeIRI, initially associated with Avastin, which had to be interrupted after 3 months when albuminuria was present. The renal and cardiovascular adverse reactions to Avastin could not be tolerated, since hypertension poses a great threat given the patient's medical history. After 6 months of treatment, a CT scan showed signs of regression with disappearance of the peritoneal metastases while the liver nodules remained stationary, which indicates a good response to chemotherapy. **Conclusions:** When dealing with CRLM, the goal becomes providing increased quality of life rather than curing the disease itself, especially for patients with severe neurocognitive disorders.

Keywords: colorectal cancer, Alzheimer, liver metastases, KRAS

A NEW PERSPECTIVE IN CONGENITAL OBESITY – ATXN2 GENE'S LOSS OF FUNCTION

Ana Lupsor[1], Diana-Laura Miclea[1], Florina Victoria Nazarie[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Infantile obesity is a rare disorder whose causes mostly rely in genetics. The exact cause of the disease is difficult to find, so multiple tests need to be done to diagnose it correctly. The loss of function of ATXN2 gene is one of the sources. **Objective:** The aim of this report is to highlight the importance of genetic tests in pediatrics and to present an interesting clinical case and its difficulties in finding the ultimate diagnosis. **Material and methods:** A 9-months old male presented to the children hospital with hypoventilation and infantile obesity. The clinical exam also showed a global retard in development and muscular hypotonia. Routine lab tests revealed multiple infections (increased ESR, monocytes and IgM, positive stool exams for Salmonella, Klebsiella and Shigella), that were treated with antibiotics. The ALT, bilirubin and creatin kinase levels were increased, indicating muscular and hepatic destruction. The polymorphism of CFTR gene was found only in heterozygote form. A tandem mass spectrometry was performed, revealing a decrease in alpha-1,4 glucosidase, specific for Pompe disease. This result was uncertain due to the bad quality of the sample. A DNA sequencing was required for confirmation. **Results:** The Next Generation Sequence of the patient's DNA revealed the mutation ATXN2:NM002973:c.C562T:p.Q188, encoding a loss in function of the gene, due to a nucleotide substitution and a STOP codon formation. This variant had never been found in a clinical case and had not been mentioned in any data base. In animals, mutation is described to provoke early onset obesity, exactly like the patient's phenotype. **Conclusions:** This is one of the first reports describing the consequences of function loss for ATXN2 gene. In order to diagnose more efficiently this disease, future functional studies should not only concentrate on analyzing the gene, but also on determining the exact effect of this variant and on finding a treatment.

Keywords: pediatric obesity, ATXN2 gene's loss of function, muscle hypotonia, Next Generation Sequencing

EVOLUTIVE PATTERN OF MAJOR DEPRESSIVE DISORDER AMONG YOUNG PATIENTS

Razvan Andrei Teslaru[1], Mihai-Octavian Terinte[1], Maria Gherghel[1], Iosif Gabos Grecu[1], Andreea Salcudean[1]

[1]UMFST Tîrgu Mureş

Background: New health insurance data shows a rise of major depression among groups of all ages, being especially faster among teens and young adults. The study that contains health records from 41 million people revealed that between 2013 and 2016 major depression have risen dramatically by 33% with the most alarming rise found in the group of people between 18 and 34 years old which presented a 47% increase. **Objective:** The study wants to present the incidence and evolution of major depressive disorder among teenagers and young adults. **Material and methods:** We performed a retrospective longitudinal study between January 2019 and September 2020 that took place in the Department of Psichiatry at Clinical County Hopsital of Targu Mures containing a total of 68 patients which were eligible for the study. **Results:** Major depressive disorder is more common in women, the study showing that 80% of the patients were indeed women and they are more prone to anxiety if they live by themselves. The heredocolateral history showed no sustainable data. Most common second diagnose was anxiety. 25% of the patients had autolytic attempts. The majority of the patients suffer from insomnia (92%). The younger patients tend to stay less days in the hospital and 90% of the entire study group showed modifications in the field of consciousness, also the social network support proved to influence in a positive manner treatment adherence. **Conclusions:** Major depressive disorder affects in a serious way how people function in society, the lack of consistency in treatment and poor network social support being important factors why they develop recurring episodes of depression throughout the years.

Keywords: depression, young, rise

THE ROLE OF CT IN THE DIAGNOSIS OF KLATSKIN TUMOR - CASE REPORT AND LITERATURE REVIEW

Claudia Raluca Marginean[1], Alexandra Mihaela Ratiu[1]

[1]UMFST Tîrgu Mureş

Background: Cholangiocarcinoma, a type of tumor originating in the epithelium of biliary ducts, represents about 2% of total malignant tumors and 10% of the hepatobiliary ones. Klatskin tumor, a subtype of cholangiocarcinoma has its origin in the hepatic hilar region. It is usually aggressive, associated with unspecific symptoms until advanced stages and with poor prognosis if surgical cure is not possible. **Objective:** The aim of this paper is to emphasize the role of Contrast-Enhanced Computed Tomography (CECT) in the diagnosis and complex evaluation of Klatskin tumor. **Material and methods:** We present the case of a 62 years old male, who experienced jaundice, weight loss and performed an abdominal ultrasound which depicted dilatation of intrahepatic bile ducts and raised suspicion of an obstructive cause. Due to cardiac pacemaker presence, Magnetic Resonance Imaging (MRI) could not be performed and an abdominal CECT scan was indicated for proper evaluation of the patient **Results:** The CT scan revealed wall enhancing soft tissue thickening, up to 5 mm, of the common hepatic duct wall, in the hilum, with prelesional intrahepatic bile ducts dilatation, findings being consistent for neoplastic disease. Central and peripheral intrahepatic bile ducts dilatation, same as dilatation of right and left hepatic ducts were described. Periportal and hilar liver adenopathies completed the imagistic findings. Histology confirmed the diagnosis of cholangiocarcinoma, based on this the patient began polychemotherapy for his condition. **Conclusions:** Complex imagistic approach of biliary tract pathologies is necessary, with abdominal ultrasound being the first and the screening test to choose. MRI, the most sensitive imagistic technique for diagnosis of primary biliary tumors and biliary extension has its limits and contraindications. This case of Klatskin tumor emphasizes the importance of Computed Tomography scans as an alternative tool used in the appropriate imagistic diagnosis and complete evaluation of patients presenting with biliary tract pathology.

Keywords: Klatskin tumor, adenopathies, abdominal CECT scan

SYNCOPA - THE FIRST SIGN OF THE PERI-MYOCARDIAL INFARCTION PERICARDITIS - A CASE REPORT

Paula Maria Anderco[1], Ana Maria Mitrut[1], Oana-Maria Stoia[1]

[1]Facultatea de Medicină Victor Papilian Sibiu

Background: The acute coronary syndrome is responsible for one of the highest numbers of deaths in cardiovascular disease. The incidence of postinfarction pericarditis has decreased to <5% since the introduction of reperfusion therapies and limitation of infarct size. Postinfarction pericarditis can be classified as "early," referred to as pericarditis epistenocardica, or "delayed" as Dressler syndrome. **Objective:** The aim of this paper is to present the case of a pacient with pericarditis during spitalization in late presentation for myocardial infarction. **Material and methods:** The case is an 67 years old male, known with type 2 diabetes, severe hypertension, with specific treatment at home, who was presenting in the emergency unit for intense pain in the upper left limb and abdominal discomfort. Clinical and paraclinical exams followed. **Results:** Emergency paraclinical investigations reveal EKG changes, with ultrasound correspondent, reactive myocardial cytolysis markers, suggesting an evolving acute myocardial infarction. After about 4 days of hospitalization, the patient presents syncope with hypotension and bradycardia. He is evaluated by ultrasound, refuting a possible heart rupture, but a large amount of pericardial fluid with 16mm diameter was revealed, suggesting an early heart attack complication, evaluated as epistenocardial pericarditis. Colchicine treatment is initiated, taking into account the guide recommendations, and the evolution was favorable, with the improvement of liquid pericarditis and the gradual decrease of volume by approximately 2mm/day. The early and late complications of acute myocardial infarction are becoming increasingly difficult to manage, our patient being able to be included in both the diagnosis of epistenocardial pericarditis and Dressler syndrome. **Conclusions:** Interventional cardiology is indicated in the first hours after the onset of coronary pain and can positively influence the short- and long-term prognosis of the patient suffering from acute coronary syndrome. In our time, when coronary angiography and percutaneous coronary stent implantation are very accessible, patients arrive at the hospital later and later.

Keywords: Pericarditis, Evolving myocardial infarction, Dressler syndrome

THE ROLE OF MAGNETIC RESONACE IMAGING IN THE EVALUATION OF LIVER TUMORS – CORRELATIONS BETWEEN IMAGING AND PATHOLOGY FEATURES

Ionut Dragoi[1], Carmen Elena Dulhan[1], Magdalena Cozan[1], Gabriel Daniel Danilescu[1], Mihaela Andreia Condrea[1], Ratiu Alexandra Mihaela[1]

[1]UMFST Tîrgu Mureş

Background: Evolution, treatment and prognosis of the patient with liver tumors depend both on speed and accuracy of the diagnosis. The goal of imaging is to differentiate between benign and malignant lesions and to evaluate the extent in order to guide further therapeutic interventions. **Objective:** The aim of our study is to highlight the importance of magnetic resonance imaging in the diagnosis of benign and malignant liver tumors. **Material and methods:** We developed a retrospective observational study, which included 50 patients in which MRI identified a hepatic tumor, further evaluated by histology. Exclusion criteria consisted of patients with know chirosis, primary tumors, allergy to gadolinium and claustrophobia. **Results:** Study population had between 22 and 81 years, with an average of 51.5 and included 52% men and 48% women. Analyzing the correlations between the sex of patients and the liver tumors involved, we identified a statistically significant association between HCC and men (p=0.0176) respectively FNH and female (p=0.0098). Also, regarding the imaging aspect of the tumors statistically significant correlations were identified between: FNH and the multifocal radiological aspect (p=0.0444), HCC and the presence of central necrosis (p=0.0001), haemangioma and peripheric arterial enhancement (p=0.0001) and centripetal filling pattern (p=0.0001). **Conclusions:** MRI represents the imaging study of choice for liver tumors. Using native and contrast sequences it can identify certain imaging features specific for malignant and benign tumors, representing an important step to guide further treatment.

Keywords: HCC, MRI exploration, histopathological examination

NOVEL STRATEGIES OF TREATMENT IN PATIENTS WITH LIVER CIRRHOSIS-A SYSTEMATIC REVIEW AND A SINGLE CENTRE EXPERIENCE

Raluca Maria Popa[1], Ana-Maria Alexandra Muscalu[2], Teodora Maria Denisa Popa[1], Adrian Vlad Pop[1], Daniela Dobru[1], Adina Roman[1]

[1]UMFST Tîrgu Mureş
[2]UMFST Tîrgu Mureș

Background: Liver cirrhosis is a chronic disease that represents a global health problem due to the high prevalence worldwide and limited available curative treatment options. Currently,liver transplantation is the only curative treatment method,which is,however significantly limited by severe shortage of organ donors. **Objective:** The aim of this review is to present recent findings regarding the novel strategies of treatment in patients with liver cirrhosis. **Material and methods:** This paper comprehends recent preclinical,clinical and review studies on the topic, published in PubMed, Web of Science and Google Scholar from the last 5 years. **Results:** The most relevant methods of treatment in liver cirrhosis have been proven to be stem cells-based therapy, replacement of intrahepatic IGF-1, administration of therapeutic agents using nanoparticles and tissue engineering using biomaterials. Multiple studies demonstrated the benefits of stem cells-based therapy such as improved bilirubin levels and Child-Pugh score and promotion of liver regeneration. The advantages of nanoparticles therapy are their unique properties of delivering an adequate number of drugs directly into the liver. Hepatic cirrhosis is associated with a high IGF-1 deficiency, therefore, studies showed that IGF-1 replacement induces fibrolysis, reduces fibrogenesis and increases albumin concentration in patients with liver cirrhosis. Tissue engineering using a variety of biomaterials and cells culture methods may reestablish the structure in organization of hepatic lobules by recapitulating cells to properly communicate, proliferate and differentiate, and ultimately to form equivalent native liver tissue. **Conclusions:** These novel strategies of treatment are becoming an increasingly promising option to treat liver cirrhosis, but further work is needed in order to define their safety and effectiveness in clinical use.

Keywords: Stem cells-based therapy, Nanoparticles, IGF-1, Biomaterials

NEW VERSUS CLASSICAL- OMALIZUMAB THERAPY IN CHRONIC GLUCOCORTICOID USER ASTHMATIC PATIENTS

Andrea Policastro[1], Jennifer Messner[1], Carolina Robillotta[1], Frederik Laier[1], Rebecca Amalfi[1], Erika-Gyongyi Ban[1]

[1]UMFST Tîrgu Mureş

Background: With an incidence ranging between 1-18% asthma affects millions of people in several countries. Is a frequent, heterogeneous disease of the conducting airways, marked by chronic inflammation and airway hyperresponsiveness. Wheeze, cough, chest tightness, shortness of breath along with variable expiration airflow limitation, vary over time and in intensity, defining the clinical picture of respiratory symptoms. **Objective:** The aim of our paper is to monitor therapy regimen through patient's follow-up, evaluate patient's quality of life under different treatments and new therapeutical possibilities. **Material and methods:** We performed a cross- sectional retrospective analysis of International-non Romania resident patients under MAB and non-MAB therapy. The study was conducted through a questionnaire of 17 questions. 97 patients filled the questionnaire. Inclusion criteria: chronic asthmatic patients >18 yo, patients under classical pharmacological treatment and under MAB therapy. We performed descriptive statistics with cross tabulation analysis and Chi-Square as well as Kendall's concordance test. **Results:** Regarding therapeutic regimen we observed that the most frequent used medication was Salbutamol (SABA) with 73.2%, Fluticasone and/or Beclometasone-dipriopionate (ICS) with 26.8% and only 3.1% of patients is currently under MAB therapy. Regarding QoL we observed that 67% of patients required treatment step up, 29.9% unchanged and 3.1% stepped down in the last year. Consequently, we observed how the majority of patients (42.3 %) experienced a slight improvement, 37.1 % didn't notice any change, 12.4% experienced a visible improvement, 3.1% experienced a slight worsening and for 5.2% health status visibly declined. **Conclusions:** Our study was aimed to evaluate therapeutic approach in chronic asthmatic adult patients in correlation with the guidelines and new possibilities. Based on the results we can conclude that there is a relatively low input coming from the new therapeutic possibilities with MAB therapy, and most of the patients are still on SABA therapy although the new GINA guidelines recommends otherwise.

Keywords: Asthma, Omalizumab, Glucocorticoids, Monoclonal antibodies

KINETIC TREATMENT APPLIED TO PATIENTS WITH STRUCTURAL SCOLIOSIS

Ilona-Veronica Pal[1], Simona Szasz, Horatiu-Valeriu Popoviciu, Patricia-Maria Mălăncrăvean, Simona Szasz[1], Patricia-Maria Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: Scoliosis is a condition of the vertebral column represented by a spinal deformity, in the three spatial planes: frontal, sagittal and horizontal. The incidence of scoliosis is about 0.2-0.6% of the total population and can occur in both childhood and adolescence as well as in adult life. **Objective:** The objective of this study is to highlight the importance of a correct posture, as well as the role that kinesiotherapy has in stopping and treating it, through the most beneficial methods of kinetic treatment. **Material and methods:** To date, 10 subjects diagnosed with structural scoliosis aged 18-30 years were evaluated. The recovery program was condacted from November 2020-April 2021, including the following recovery methods:the Klapp Method, the Cotrel Technique, the Kinesio Tape Method. In order to establish an individualized kinetic treatment, as effective as possible, tests will be implemented to assess the amplitude of the spine, the rotation of the vertebrae. **Results:** Following the application of this recovery methods, from December to April, intermediate tests showed an outstanding increase in numerical values compared to the values of the initial tests, thus an increase in the amplitude of the spine was observed by about 10 degrees in patients aged 18-24, and in patients aged 25-30 years, an increase in amplitude of 7 degrees. In the case of testing using the scoliometer, a decrease in vertebrae rotation was observed: below 10 degrees in patients aged 18-24, and in patients aged 25-30 years, the decrease was less than 15 degrees. **Conclusions:** Individualized kinetic treatment proved to be beneficial in the recovery of structural scoliosis. Following the recovery programs up to date, we observed pain amelioration, an increase in the amplitude of the spine and a decrease in the degree of rotation were demonstrated. To achieve optimal results, I suggest continuing the study over a longer period.

Keywords: structural scoliosis, kinetic treatment, method

HEMODYNAMIC RESPONSE DURING OROTRACHEAL INTUBATION IN CARDIAC ANESTHESIA

Adrian-Vasile Sandu[1], Judit Kovacs[1], Mihaly Veres[1]

[1]UMFST Tîrgu Mureş

Background: Direct laryngoscopy and passage of the endotracheal tube through the larynx induce a continuous sympathetic response, which may have an important resonance in patients with pre-existing cardiac pathology. **Objective:** The aim of the study was to highlight the hemodynamic consequences during orotracheal intubation in patients with major cardiac surgery depending on the ejection fraction(EF). **Material and methods:** We performed a prospective, observational study, which included a total of 110 patients, hospitalized at the Cardiac Surgery Clinic in Târgu Mureș. Depending on the ejection fraction, we subgrouped the patients - FE <40%. n = 55 and FE ≥41%, n=55. We recorded systolic, diastolic, mean blood pressure, heart rate, RPP (rate pressure product) preintubation, during intubation and postintubation at 1 minute. **Results:** There were no significant haemodynamic changes in patients with FE≥41% at the three major times. In patients with FE <40%, significant hemodynamic changes occurred, especially between preintubation and postintubation values at 1 minute, mean blood pressure: 67.5±7.32 vs. 50.12±6.99 (p=0.0003),blood pressure: 86.14±16.64 vs. 65.57±16.6 (p=0.0195). There was no statistically significant difference for RPP **Conclusions:** There are major hemodynamic responses during orotracheal intubation in patients with severe heart disease.

Keywords: Hemodynamic response, Orotracheal intubation, Ejection fraction

CLINICAL, BIOLOGICAL AND EVOLUTIVE ASPECTS OF PATIENTS WITH COVID-19

Diana Daniela Zdroba[1], Brîndușa Țilea[1]

[1]UMFST Tîrgu Mureş

Background: COVID-19 is an acute infectious disease caused by the novel coronavirus, SARS-COV-2 with a high rate of transmission. **Objective:** The aim of the present study was to evaluate the clinical and biological manifestations of SARS-COV-2 infection in patients with respiratory symptoms from the onset of the disease. **Material and methods:** patient data were analyzed retrospectively from the observation charts of 500 patients confirmed with COVID-19, hospitalized in the Infectious Diseases Clinic II, Târgu Mureș between March and November 2020. The confirmation of the SARS-CoV-2 infection was performed using RT-PCR testing. Patients were divided into 5 age groups. Demographic data, temperature, acute phase reactants, procalcitonin, D-dimers, liver and kidney function, myocardial enzymes, patient comorbidities, clinical forms and evolution were analyzed. Statistical analysis was performed using the Chi-Square test. **Results:** The mean age of the patients included in the study is 51.46 ± 17.46. Out of the total of 500 patients, 45.2% came from urban areas, 54.8% from rural areas; 94.4% of cases occurred in the first 10 days after the onset of symptoms, 5.6% between 11-22 days ($p < 0.001$). Patients' comorbidities were: hypertension (83.5%) ($p < 0.001$), acute ischemic heart disease 61.3% ($p < 0.001$), diabetes 34.1% ($p < 0.001$), valvulopathies 13.3% ($p = 0.001$), heart failure 33.3% ($p < 0.001$), chronic obstructive pulmonary disease 5.4% ($p = 0.025$), neoplasms 9.3% ($p = 0.005$), chronic kidney disease 11% ($p = 0.001$). Symptoms on presentation were: cough 57.8%, fever 53% and dyspnea 39.4%, dysphagia 37% ($p < 0.001$), headache 41.3% ($p = 0.045$), anosmia 28.3% ($p = 0.002$) , ageusia 19.6% ($p = 0.035$). **Conclusions:** Patients over 70 years of age with chronic vascular, pulmonary and metabolic comorbidities presented severe clinical forms of the disease, with respiratory and cardiovascular complications.

Keywords: COVID-19, comorbidities, clinical manifestations

EYELID MYOCLONIA WITH ABSENCES IN A CHILD WITH PCDH19 AND CDKL5 MUTATIONS: CASE REPORT

Flavius Bruchental-Pop[1], Diana-Laura Miclea[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Epilepsy with eyelid myoclonia (also called Jeavons syndrome) is a rare form of epilepsy, which tipically starts in the childhood with normal cognitive development, most commonly between 6 and 8 years and can be accompanied by refractory absence seizures. **Objective:** The diagnosis of infancy and childhood-specific epilepsies is often difficult and met with challenges. The current case report aims to shed light on the possible manifestations of Jeavons syndrome and also try to bridge the gap between the clinical presentations and the underlying genetic defects that may give rise to them by providing proof of correlation, that may ultimately prove causation. **Material and methods:** We present the case of a 4-year old girl with microcephaly, global developmental delay, stereotypies, expressive language deficiency, currently diagnosed with eyelid myoclonia with absences which manifest once or twice daily. The symptoms debuted in the early infancy and the seizures are resistant to treatment. There is no relevant family medical history. **Results:** Standard blood tests, transferrin isoelectric focusing, amino acid chromatography, urine organic acids were normal. The patient underwent a brain MRI scan, which revealed no morphological abnormalities and the EEG was characteristic for this type of epilepsy. Later, a gene sequencing panel, comprised of 69 genes known to be associated with genetic epileptic disorders, was performed and 2 mutations were found in the PCDH19 and CDKL5 genes, respectively. Upon further investigation, the same PCDH19 mutation was detected in the father. **Conclusions:** This case provides insight into possible genetic mutations that can lead to eyelid myoclonia epilepsy. There are cases of early on-set epilepsies associated with mutations in both PCDH19 and CDKL5 in the literature and this one further showcases the necessity of genetic research and testing, in order to better understand and treat this broad spectrum of diseases.

Keywords: eyelid myoclonia epilepsy, PCDH19, CDKL5

THE PROGNOSTIC VALUE OF HISTOPATHOLOGICAL PARAMETERS IN MALIGNANT MELANOMA

Medeea-Maria Roman[1], Doina Milutin, Simona Gurzu, Marius-Alexandru Beleaua[1]

[1]UMFST Tîrgu Mureş

Background: Although malignant melanoma (MM) is not the most frequent encounter among skin cancers, it is known for having the highest mortality rates and an increasing incidence in the past years. **Objective:** To present data regarding the prognostic value of clinicopathological parameters in primary MMs. **Material and methods:** A retrospective assessment of consecutive cases of primary MMs diagnosed at the Emergency Clinical County Hospital of Targu-Mures, Romania, between 2015-2018, was done, based on data included in the histopathological reports. Correlations between clinicopathological parameters and death occurrence were done using the Spearman correlation test and the overall survival rate was estimated with Kaplan-Meier curves. **Results:** During 2015-2018, a total of 93 MMs were diagnosed, in both males and females (M:F =1.02:1) with an average age of 53.23 ± 2.54 years. Among them, 89 (95.69%) were primary skin melanomas whereas the other 4 were primary mucosal melanomas. Most skin melanomas were localized on the trunk (n = 35), followed by extremities (n = 32), and head and neck (n = 22), while mucosal melanomas were localized in the oral cavity (n = 3) and larynx (n=1). High mortality rates were associated with nodular melanoma ($p<0.001$) diagnosed in 78.37% of the deceased patients (n = 29), followed by lentiginous melanoma (10.81%). None of the patients with superficial melanoma died in the follow-up period (average of 49.13 months). Breslow depth also proved to remain significantly associated with the death rates ($p<0.001\%$; $r =0.428$). Classic clinicopathological factors such as ulceration, mitotic index, Clark level, tumor-infiltrating lymphocytes, lymphovascular invasion, growth phase, dimensions and TNM stage were correlated with death events, except for microsatellites, satellitosis, neurotropism, tumor regression grade, and localization. **Conclusions:** Histopathological examination remains a gold standard to predict MMs evolution. The risk of mortality remains high in patients with nodular and lentiginous melanomas with a high Breslow depth and mitotic index.

Keywords: primary melanoma, Breslow, histological subtype, mitotic index

HISTOPATHOLOGICAL AND IMMUNOHISTOCHEMICAL ASPECTS OF MENINGIOMAS

Elena Diana Creța[1], Attila Kövecsi[1]

[1]UMFST Tîrgu Mureş

Background: Meningiomas are the most common tumors of the extra-axial central nervous system, which derive from the meningothelial cells of the arachnoid layer. **Objective:** The aim of our study is to perform a retrospective analysis of the cases diagnosed with meningioma in order to determine the correlations between the immunohistochemical expression of intratumoral progesterone receptors, clinical and pathological features and recurrence. **Material and methods:** We retrospectively analyzed 58 cases diagnosed with meningioma within the Pathological Anatomy Department of SCJU Targu Mures. We used Tissue Microarray paraffin blocks, immunohistochemistry for progesterone receptors (PR) and the immunoreactive score (IRS) to quantify the immunohistochemical labeling. **Results:** Depending on the histological variants, the transitional meningioma is the most frequently observed subtype, followed by the meningothelial and fibroblastic type. The positivity of PR was observed in 72% of cases. Following the results of the immunoreactive score, we obtained a percentage of 55% with strong positive expression, 28% with mild positive expression and 17% with weak positive expression of PR. Most cases were at women (64%). The progesterone receptor expression was significantly higher in benign meningiomas (69%) compared to WHO grade II (21%) or III (10%) meningiomas. Depending on the location, the PR positivity was present in all cases at the level of the spine and in 70% of the intracranial locations. **Conclusions:** The PR positivity is more common in females and in benign meningiomas with a predominance of transitional, meningothelial and fibroblastic subtypes. The absence of PR expression was found in a higher percentage in more aggressive forms of meningiomas. The relapses with positive PR expression were present in grade I and II meningiomas and absent in grade III meningiomas.

Keywords: meningioma, immunohistochemistry, progesterone, receptor

INCESSANT ATRIOVENTRICULAR NODAL REENTRANT TACHYCARDIA ASSOCIATED WITH THE VULNERABILITY OF THE FAST PATHWAY

Diana-Lavinia Moldovan[1], Dan Dobreanu[1], Ioana Șuș[1]

[1]UMFST Tîrgu Mureş

Background: Atrioventricular nodal reentrant tachycardia (AVNRT) is the most common regular paroxysmal supraventricular tachycardia observed in adults. The incessant AVNRT was described only in a few case reports. **Objective:** The aim of this case report was to describe the electrophysiological findings and the response to the arrhythmia induction techniques in an elderly patient with vulnerability in the fast pathway (FP) associated with an incessant AVNRT, successfully treated with radiofrequency catheter ablation (RFCA). **Material and methods:** We present the case of a 78-year-old male patient, who presented to the clinic with palpitations and fatigue during physical effort. At presentation, the patient was in sinus rhythm at 55 bpm with a significantly prolonged PR interval of 440 ms on ECG, and Wenckebach block was recorded overnight on Holter. During treadmill cardiac stress test, at stage two of Bruce protocol, the PR interval suddenly prolonged and incessant AVNRT was induced. Subsequently, the patient underwent electrophysiologic study. At the beginning of the procedure, there was a high Wenckebach threshold at 540 ms and after a spontaneous atrial premature beat, an AV nodal echo beat was observed but due to vulnerability of the FP, AVNRT could not perpetuate.Therefore, atropine was administered to enhance conduction over the FP. Both at programmed atrial stimulation at a cycle length of 500 ms with one premature beat and at burst pacing, AV nodal echo beat and typical slow-fast AVNRT were induced. **Results:** The SP was successfully ablated using RF. At the end of the procedure, the tachycardia was non-inducible. The cardiac stress test was repeated and the patient reached a maximum heart rate of 120 bpm, without tachycardia induction. **Conclusions:** This case highlights the particular pattern of AVNRT induction in an elderly with impaired AVN FP conduction. Slight changes in rate produced by sympathetic tone activity lead to changes in AVN refractoriness, which induced incessant tachycardia.

Keywords: Incessant AVNRT, Fast Pathway, Electrophysiology study, Radiofrequency catheter ablation

ESOPHAGEAL TUMOR PENETRATED INTO THE LEFT PRIMITIVE BRONCHUS: A CASE REPORT

Ioan Cazamir[1], Mariana Bletea, Gheorghe-Marian Rotariu, Ștefan-Alexandru Lungu, Sergiu Crisan, Eugenia Corina Budin[1]

[1]UMFST Tîrgu Mureş

Background: Esophageal cancer is one of the leading causes of cancer-related death worldwide and surgery plays an important role in the treatment strategies. **Objective:** Our aim is to present a patient with severe esophageal stenosis and esophageal neoplasm which infiltrate the descending aorta and left primitive bronchia. **Material and methods:** We are presenting the case of a 59 years old woman, admitted in the Surgery Service of Targu Mures Emergency County Hospital, presenting esophageal dysphagia, retrosternal discomfort and 10 kg weight loss. The pathological history of the patient reveals an accidental ingestion of caustic soda at the age of 1 year old, followed by a subtotal gastrectomy. CT scan revealed middle esophageal stenosis, with infiltrating pseudonodular formation with no cleavage plan towards the ascending aorta and possible invasion into the left primitive bronchia, pulmonary metastases, uncertain left adrenal corticosteroid node . In October 2020 an impacted food bowl was extracted with rigid esophagoscope. Upper digestive endoscopy with sedation was performed before surgery, concluding the presence of a stenotic esophageal tumor. The histophatological examination highlighted atypical squamous cells. **Results:** Surgical surgery is performed by exploratory laparotomy and Albert-type feeding jejunostomy, followed by adhesiolysis and monoplane laparography. The patient`s postoperative progression was favorable and after 7 days, the patient is discharged in good condition, with the recommendation to perform a bronchscopy with endobronchial biopsy. Bronchoscopic examination highlighted the extrinsec compression of postero-medial left distal left bronchia and endobronsic metastases left primitive bronchia. Endobronsic biopsy confirmed suspicion of endobronsic metastasis of the oesophageal tumor. The peculiarity of the case is the intrabronsic penetration given by the esofiagian tumor. An important aspect is the interdisciplinary approach to highlight the extension and complications of the tumor. **Conclusions:** Although surgery was palliative, it improved the patient's quality of life and prolonged survival.

Keywords: Albert jejunostomy, esophageal cancer, endobronsic metastases, severe stenosis

THE ROLE OF PHYSICAL THERAPY IN GROWTH AND DEVELOPMENTAL DISORDERS IN CHILDREN

Mária Aneta Béres[1], Nicolae Neagu[1], Patricia- Maria Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: During the childhood the body grows and develops. The process of growth and development is influenced by several factors, so body deficiencies can occur. School educators can draw parents attention to any disorders that may arise. When a change in posture is noticed, it is important to consult a specialist. **Objective:** Capturing/stimulating parents attention on the importance of physical activity in harmonious development of the child; highlighting the importance of prevention in growth and developmental disorders that may occur in children. **Material and methods:** The study included 50 parents of children aged 10-14 (26 girls and 24 boys) from Deaj Secondary School. The evaluation was based on a questionnaire. **Results:** After analyzing the answers, it can be stated that 64% of parents consider that an annual assessment is needed, regarding the growth and development of their children. 54% of them are rarely informed about growth disorders. Even if 100% of the parents are aware of the importance of physical effort in the harmonious development of the child, they do not take action in this regard. It can be stated that 63.3% of the parents did not notice vicious attitudes. The family doctor drew attention to a body deficiency in 12% of the subjects. 40% of children play sports systematically. Over 44% of the parents integrated the child in a program for the prevention or recovery of the physical deficiencies found, having positive effects. All parents would agree to include a physiotherapist in the school structure. **Conclusions:** Based on the results obtained, we can say that both parents and teachers belonging to a school do not place enough emphasis on the physical activity of children and students, respectively, and in the context in which certain growth and development disorders are observed, rarely resort to a prevention or recovery program.

Keywords: growth, development, activity, physical therapy

RECOVERY AFTER HIP REPLACEMENT WITH UNCEMENTED STENT

Răzvan-Dumitru Nicușan[1], Octav Russu[1], Patricia Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: The hip or coxo-femural joint is the largest joint of the body, characterized by very high mobility and an extraordinary amount of inherent bone stability, with significant differences in bone anatomy. The most common traumas are: congenital dysplasia, hip osteoarthritis and avascular necrosis of the femoral head. **Total hip replacement** is the most common method of treatment after dislocation, hip dislocation being a major and common complication of hip arthroplasty. In bioengineering have resulted in cemented and uncemented hip prostheses. Both types of prostheses ensure a durable fixation and facilitate accelerated rehabilitation. **Objective: The objectives** of kinetic recovery are: pain relief, maintaining joint mobility, re-education of gait (short term), toning muscles, increasing joint mobility, increasing muscle endurance and increasing quality of life (long term). the means used will be the walking frame, respectively the walking stick. **Material and methods:** The study period will be between January 2021 and June 2021 and will consist of the telephone evaluation of 20 subjects with hip arthroplasty in the Orthopedic and Traumatology Clinic of SCJ Mureș, starting immediately after surgery, then weekly up to 6 months and vadescribes the efficiency of the kinetic treatment, the recovery time, then the socio-professional reintegration. **Results:** Following evaluations using the Harris questionnaire, we found due to the average of 33.4 that patients had a severe deficit score, but in the hospital period there is a good evolution of patients who daily follow the postoperative kinetic program, the average reaching 70, which means an acceptable score. **Conclusions:** In conclusion, physiotherapy has the most important role in recovery, this type of treatment being summed up objectives, recovery program structured by days, weeks or months, scheduling and planning in physiotherapy being closely related tomedicine, and the doctor, nurse and physiotherapist are in a relationship of complementarity to facilitate the medical recovery of each patient.

Keywords: Replacement, Deficit, Reintegration, Treatment

KRUKENBERG TUMOR: A FAST-PACED DETERIORATION OF A PATIENT WITH NO PRIOR MEDICAL HISTORY

Cosmin Constantin Mutu[1], Petrina-Florentina Damean, Emilian Comșulea[1], Anda-Mihaela Cerghizan[1]

[1]UMFST Tîrgu Mureş

Background: The Krukenberg tumor is one of the rarest ovarian cancers. With a primary site in the gastrointestinal tract, this metastatic tumor usually affects both ovaries. The histological characteristics are that of a mucin-rich signet cell adenocarcinoma. **Objective:** This study aims to present the accelerated evolution of a patient with a prior clinically asymptomatic Krukenberg tumor. **Material and methods:** A 45-year-old patient with no prior medical history was admitted to the Internal Medical Clinic 1 with severe fatigue, one episode of hematemesis and intense pain in the lumbar region. Her vitals were: BP 100/65 mmHg, HR 98 bpm, SaO2 98%. The blood tests revealed a severe anemia (Hgb = 2.1 g/dL; Hct = 7.3%), thrombocytopenia (21000/μL) and coagulation disorders (INR = 2.25). The hepatic function has also affected (SGOT = 968 U/L; SGPT = 478 U/L; Total bilirubin = 1.64 mg/dL). The leucocytosis (45000/μL), C-reactive protein (156.68 mg/L) and procalcitonin (1.94 ng/mL) indicated a systemic inflammation. Given the hemodynamic instability of the patient, upper endoscopy could not be realized. An abdominal contrast-enhanced CT was done and the results were: a heterogeneous mass in the right ovary, multiple hepatic metastases, peritoneal carcinomatosis and lymphadenopathies. The patient needed multiple transfusions over the hospitalization period but she did not respond well to them. Multiple haemorrhages in the digestive system, seen as hematemesis and melena, would lead to an unfavourable outcome with the patient undergoing cardiac arrest. **Results:** The necropsy revealed that the primary site of the tumor was the greater curvature of the stomach. Metastases were found in the ovaries, liver, peritoneal cavity, lumbar vertebrae and perivertebral lymph nodes. **Conclusions:** This study highlights the importance of ovary cancer screening and early diagnosis of Krukenberg tumors. Given the asymptomatic evolution of some tumors and the accelerated deterioration of patients, the prognosis remains poor.

Keywords: Krukenberg tumor, ovaries, metastases, gastric cancer

RESOURCEFUL MICRODUPLICATION OR ENVIRONMENTAL FACTOR OVERSIGHT? PRADER-WILLI-LIKE SYNDROME OF UNCERTAIN ETIOLOGY

Roxana Bolchiș[1], Diana-Maria Domnița, Eliza Bob, Herman Denisa[1], Diana Laura Miclea[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Prader-Willi syndrome (PWS) is a rare disorder, occurring primarily in the deletion of the critical 15q11-q13 chromosome region. Prader-Willi-like syndrome (PWLS) shares some phenotypical features but has a different genetic basis. **Objective:** The report aims to indicate the possibility of multiple etiologies in patients with PWLS, and, in such cases, the need for accurate chromosomal analysis and diligent study of the environment. **Material and methods:** A 17-year-old girl presents to the Medical Center NoRo, Salaj, with moderate intellectual deficiency, class III obesity (IMC=52.19 kg/m2), short stature (151cm), anger issues, irregular menstrual cycles, and a history of neonatal hypotonia. This phenotype is suggestive of PWS. Other relevant clinical features include ADHD, a high-arched palate, and syndactyly. The patient's mother was diagnosed with epilepsy, and she has been taking Depakine, a teratogenic antiepileptic medicine, during pregnancy. **Results:** The SNP array analysis done in Cluj shows a 1.7 Mb microduplication in the 15q11.2 region (BP1-BP2), inconsistent with the typical etiology of PWS. As a result, the positive diagnosis is PWLS. Epilepsy is a condition considered to be linked with this VUS (variant of unknown significance), and thus inheritance is an option. It has also been consistent in literature with neurodevelopmental disorders, ADHD, and muscular hypotonia. Depakine induced symptoms include syndactyly, neurocognitive developmental problems, growth deficiency, and high-arched palate. However, neither Depakine nor this microduplication has been documented to induce hyperphagia or aggressive behavior. Therefore, there is an environmental factor or BP1-BP2 involvement suspected in the aggravation of this phenotype. As obesity is the prevailing cause of mortality in PWLS, knowledge and prevention of the cause could lead to better life expectancy.
Conclusions: : The genotype-phenotype correlation should always be delineated to provide precise genetic counseling and proper management of the patient. Smaller and broader parts of the genome need a thorough examination in case of uncommon allelic variants.

Keywords: Prader-Willi-like syndrome, Depakine teratogenicity, BP1-BP2 microduplication, environment

THE SILENT EPIDEMIC − NON-INVASIVE DIAGNOSIS OF FATTY LIVER

Ioana Maria Băbuţan[1], Iunius Paul Simu[1]

[1]UMFST Tîrgu Mureş

Background: Non-alcoholic fatty liver disease (NAFLD) is the most common cause of chronic liver disease around the world. It is expected to become the number one cause of liver transplants by 2030. WHO warns about the obesity epidemic rising incidence of NAFLD. Liver steatosis is the first and most manageable stage followed by steatohepatitis with a potential evolution to cirrhosis and hepatocellular cancer. **Objective:** NAFLD has a rising prevalence of more than 25% in the general population. This study intends to present the importance of CT as a non-invasive means of screening used in patients with an existing indication for it. **Material and methods:** We have analyzed 899 CT's of patients at the Radiology clinic, Targu-Mures Emergency Hospital. The inclusion criteria: every CT scan taken in the first half of 2020. Exclusion criteria: alcoholism, genetic/other liver related disease. Data was gathered using PACS, Radiant and H3 Concept. After measuring liver density on CT, patients were divided into two groups: steatosis (<50HU) and healthy liver (>50HU). **Results:** The number of patients eligible was 860 (58% men/42% women). The steatosis group had 384 (45%) with age ranging 15-96y/o and an average age of 60. The severity of steatosis was classified by HU in: mild(40-49HU), moderate(30-39HU), severe(20-29HU) and very severe(<20HU). Liver function was affected in 80% of patients with very severe steatosis and in 35-45% with mild steatosis. Insulin resistance plays a crucial role in developing steatosis. More than 70% of patients with moderate steatosis had Diabetes Mellitus. **Conclusions:** NAFLD is a major public health problem being the most rapidly growing cause of HCC. The incidence has doubled in the past decade and requires a proper non-invasive method to diagnose in absence of symptoms. Thus, examining the abdominal CT's of patients offers a standardized and quantitative investigation and is less prone to anatomical constraints.

Keywords: NAFLD, Steatosis, ComputerTomograph, HounsfieldUnit

COVID-19 VACCINES- A PATHWAY BACK TO NORMALITY

Beatrice-Elena Velescu[1], Septimiu Toader Voidăzan[1]

[1]UMFST Tîrgu Mureş

Background: Coronavirus disease (COVID-19) is a new infectious disease, which express a highly increased transmissibility and it is caused by a newly discovered coronavirus, Severe Acute Respiratory Syndrome Coronavirus2 (SARS-CoV-2). **Objective:** The aim of this study is to assess the acceptance among Romanians, regarding the administration of COVID-19 vaccine. We wanted to see if people express universal willingness to accept a COVID-19 vaccine or if it is a cause for concern. **Material and methods:** For this study we created and distributed an online questionnaire , through social media, as a basis of the survey. We collected the answers from participants of different ages, different religions, both man and women and with different areas of origin. 1455 subjects were enrolled in the statistical data analysis, which was performed by using the Chi-Square test. **Results:** Responses from 1455 people were analyzed and 50,8% are refusing to get the COVID-19 vaccine, while 49,2% are willing to receive it. A percentage of 81,3% claim to understand the mechanism by which vaccines work and only 18,8% accept that are not familiar with this topic. Females ($p<0,05$) and individuals with the age between 18-24 years old ($p< 0,05$) demonstrated higher desire to vaccinate. **Conclusions:** Participants reported high hesitancy and refusal regarding vaccination. Several barriers were identified in the perception of the individuals and efforts should be intensified to overcome them.

Keywords: COVID-19, Vaccine, Acceptance

UNEXPECTED TUMOR IN AN 81-YEAR-OLD MALE

Renata Agoston Coldea[1], George-Daniel Cuc[1], Andreea Maria Loboda[1], Delia-Ioana Răduțiu[1], Mihail Tănăsescu[1], Lucia Agoston Coldea[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Atrial myxoma is a benign, primary heart tumor which grows on the atrial septum. It develops mainly in the left atrium and is more common in adult women. The clinical presentation includes dyspnoea, syncope, neuralgia and other constitutional symptoms like fever, fatigue and weight loss. In the following, we are going to present the case of an 81-year-old male who was admitted to the hospital with dyspnoea and chest pain. **Objective:** The purpose of this case report is to highlight the necessity of imagistic examinations (echocardiography, CT, MRI) as diagnostic methods in patients with atrial myxoma. **Material and methods:** An 81-year-old male with no significant medical history was admitted to the ER with rapid and irregular heart palpitations, paroxysmal dyspnoea and precordial pain. On clinical examination, cardiovascular evaluation showed third degree arterial hypertension with tachyarrhythmic heart sounds with diastolic rumble and holosystolic murmur in the mitral site; lung auscultation revealed bilateral basal crackles; bilateral pitting edema of the legs was present. He was transferred to the internal medicine department, where further investigations were made to assess his clinical evolution and treatment: ECG, Holter monitoring, cardiac biomarkers, CT coronary angiogram and MRI which showed a tumoral mass in the left atrium. **Results:** The investigations showed paroxysmal atrial fibrillation and incomplete right bundle branch block associated with signs of heart failure. The echocardiography showed a hyperechogenic structure of 35/40 mm, slightly mobile fixed on the middle region of the interatrial septum. The cardiac CT and MRI made after admission showed images characteristic for an atrial myxoma thus confirming the diagnosis of left atrial myxoma. **Conclusions:** Our case emphasizes the importance of a periodic echocardiography evaluation, assessing the presence of atrial myxoma in older patients, even though it is more frequent among young patients.

Keywords: atrial myxoma, echocardiography, CT, MRI

INTERMITTENT FASTING ON A FOCUS GROUP

Timea Paula Mihaly[1], Tarcea Monica[1]

[1]UMFST Tîrgu Mureş

Background: Fasting is an old way of dieting which dates a long time ago. In the early days of humanity food was hard to find and poor in nutrients and the body was submitted to a stage of calorie depletion. So nowadays we use the same method to reprogram our bodies and reduce the risks of obesity. **Objective:** To prove that consuming one meal per day stimulates your body to enter in a state of ketosis and burn more fat and deplete the existing glycogen reserve. **Material and methods:** An online study based on quantitative method and distributed to 620 female and male participants from Mures county, via google forms. The participants are from rural and urban (with different levels of education), of different ages but I chose a sample group between 18 and 35 years old..Also the reason why they wanted to loose weight was one of the criteria and if they suffer of any chronic disease.We wanted to evaluate the efficiency of the fasting diet. For the statistic part it was used STATA, a program for analyzing data from different platforms, Excell and Microsoft Word for graphic designs and writing. **Results:** The study revealed that out of all 620 participants 63% know everything about fasting and they are using it, 25.7% know only the name but they intend to use it and 11.3% know nothing and do not intend to use it. Participants age range was 65% between 18-35 and 55% from urban area.Also it was revealed that the persons whom used this kind of diet have lost in time 7.2% more than 20 kg, 11.8% between 15-20 kg, 11.6 between 10-15 kg, 22.7% between 5-10 kg, 19.1% between 3-5 kg, 12.3%between 0-3 kg, 15.3% nothing. Most of the participants believe that consuming between 1500-2000calories, 28%causes fat depletion, state of ketosis and weight lost and 45% believe that a range between 1000- 1500 calories is enough to consume for a fasting day considering that they reduce the number of meals and increase the period of not eating anything. **Conclusions:** Most of the subjects consider that fasting is a great method to keep their bodies in shape and limit their overeating and also have more energy and resources to feel their best.ketosis and glycogen depletion is a really great way for achieving their goal. A small percent consider that fasting is hard to mentain and they do not have much support from their families and friends.

Keywords: body ketosis, Calorie intake, Healthy lifestyle

METHODS OF PHYSICAL-KINETIC RECOVERY APPLIED POSTMENISCECTOMY

Ada-Patricia Moldovan[1], Adrian Ivănescu[1], Patricia-Maria Mălăncrăvean, Pal Fodor, Adrian Ivănescu[1], Patricia-Maria Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: Meniscus tears is one of the most common injuries of the knee,which can be traumatic or degenerative,and its severity depends on localization and extension.If the injury is localized in the central avascular area of the meniscus,then arthroscopic meniscectomy is performed. **Objective:** In this paper the main objective is to demonstrate the effects that complementary techniques have in speeding up the post-surgery recovery process and in shortening the duration of the program.The benefits of Muscle Taping,Trigger Points or FASCIQ techniques were carefully monitored. **Material and methods:** The study takes place between December 2020 and April 2021 at the KineticSoft Recovery Centre,where 5 patients of different ages,between 18-65 years,both male and female,athletes or sedentary patients were monitored.Patients were subjected to initial and final joint and muscle testing.High-performance devices such as TECAR and Wireless Electrostimulation were used,allowing the exercise program to be performed at the same time.In addition,specific materials such as the Bobath ball,elastic band, medicinal ball,balance plate,TRX,treadmill or elliptical bike were used. **Results:** The initial muscle testing of the 5 patients,carried out by means of the muscle strength scale,results in an average of 3 points on the strength scale.Joint mobility was measured using the goniometer,and the average has a 105° flexion deficit and 19° extension deficit.For 3 weeks the individualized program was applied for each patient,starting from reduce the inflammation,pain or swelling,reaching increased muscle strength,improvement of balance and joint stability.The final evaluation found a 98% improvement in flexion deficit and 100% extension deficit.The muscle reaching a normal,very well toned functionality, denoted by 5 points on the force scale. **Conclusions:** Following the practice of individualized programs and comparing the initial and final results,we can conclude that a well structured and complex recovery program brings great benefits to postmeniscectomy patients,quickly reintegrating them into everyday life.For statistically conclusive results,I recommend continuing the study over a longer period of time.

Keywords: meniscectomy, recovery, FASCIQ, mobility

RECOVERY POSSIBILITIES IN LOMBALGIA

Bogdan Lozonschi[1], Mirela Parvu[1], Patricia Malancravean[1]

[1]UMFST Tîrgu Mureş

Background: Low back pain is an acute or chronic suffering, of various etiologies, which affects both young people and adults, and which has a direct impact on quality of life.The aim of the study was to evaluate the role of the recovery program, consisting of electrotherapy, massage and physical therapy in recovering low back pain. **Objective:** involvement of an appropriate position of the column during the various daily activities; improving mobility and amplitude of movement; toning of the paravertebral muscles of the lumbar spine with the aim of correcting vicious positions and avoiding recurrence of pain; improving motor capacity; collaboration of patients with the physiotherapist to achieve the desired results. **Material and methods:** The study group included 30 patients with low back pain who followed the recovery program in the Kinetica Medical and Sports Recovery Center in Tîrgu Mureş. Low back pain was assessed using a visual analog scale (VAS), where 0 represents painless and 10 represent pain with maximum intensity. Patients were given a complex program consisting of electrotherapy, massage and physical therapy. **Results:** The study group included 15 men and 15 women, with an average age of 45,8 years. At the initial pain assessment, 7 patients had mild pain, 15 moderate pain, 8 severe pain, with an average VAS value of 5.4 at the beginning. At the final pain assessment, at the end of the program applied, after 14 days, the average VAS value was 2.4, achieving an improvement of 3 points. **Conclusions:** Rehabilitation treatment in low back pain, is extremely beneficial for pain relief and, for this reason, it should be applied, to maintain and increase mobility and the well-being of patients.

Keywords: low back pain, recovery, cause, risk factors

THE IMPACT OF A PANDEMIC OUTBREAK ON PAEDIATRIC ENDOCRINOLOGY CARE

Lena Piotraschke[1], Raluca Monica Pop[1]

[1]UMFST Tîrgu Mureş

Background: The pandemic outbreak of Corona-Virus-disease 2019 (COVID-19) in February 2020 has an impact on almost all aspects in life. Also, children with endocrinological diseases are affected due to changes of the healthcare system, community and lifestyle alterations and individual factors. **Objective:** The aim of this study was to investigate the impact of COVID-19 on the paediatric endocrinology service in Targu Mures. **Material and methods:** Data have been collected from electronic patient files of the clinic in Targu Mures. Children who have been treated due to endocrinological reasons in 2019 and 2020 were included. Demographic data, frequency of diagnosis and the total number of visits have been analysed and were compared before and after the pandemic outbreak. **Results:** In total 1228 clinical admissions took place (800 in 2019; 428 in 2020), a decrease of 46.5%. The patients (56.03% girls and 43.97% boys) were on average 10.98 years old. Most of the documented diagnosis were not specific (65.47%). Frequently coded diagnosis included obesity (11.64%), Hashimoto thyroiditis (6.51%), short stature (3.66%) and low weight/ malnutrition (3.58%). In 2019 (n=399) and 2020 (n=315) 714 outpatients came for a consultation, with a reduction of 21.5%. Most common reasons were short stature (41.60%), small for gestational age (13.31%), precocious puberty (9.66%) and Turner syndrome (5.74%). **Conclusions:** COVID-19 had an impact on the paediatric endocrinology service. The number of admissions after the pandemic outset is almost half of the year before which indicates a lower addressability due maybe to fear and the consideration of endocrine complains as non-emergency. It is necessary to provide a steady and safe availability for diagnosis and treatment procedures. Electronic data system analysis does not allow a thorough audit, as the majority of consultations were coded as unspecified. This indicates a need to redefine the coding system for admissions in the new national framework contract.

Keywords: COVID-19, Paediatrics, Endocrinology, Targu Mures

HOW DOES THE COMPLEXITY OF THE PHARMACOLOGICAL TREATMENT INFLUENCE THE CARDIAC SYMPATHETIC TONE

Răzvan-Mihai Cărpușor[1], Emanuel-David Anitei[1], Dragoș Șulea[1], Alexandra Aniței, Paul Călburean[1], Marius Mărușteri[1]

[1]UMFST Tîrgu Mureş

Background: Modern heart failure treatment comprises multiple pharmacological classes such as beta-blockers, angiotensin-converting enzyme inhibitors, angiotensin receptor blockers with neprilysin inhibitors and, antialdosteronics. While it is known that beta-blockers act directly on the sympathetic nervous system (SNS), for the other classes it is not clearly known to what extent influences SNS. **Objective:** Our aim was to analyze whether there is a correlation between the number of pharmacological classes and sympathetic tone in patients with heart failure. **Material and methods:** Consecutive patients hospitalized between January 2018 and December 2020 with a diagnosis of heart failure and 24-hour Holter ECG recordings were selected. Of those, patients with documented chronic cardioactive pharmacological treatment were included. Autonomic tone was assessed by analyzing heart rate variability parameters from ambulatory ECG recordings. **Results:** A total of 178 patients were included, of which 112 (62%) were males with a mean age of 62 ± 12 years and with a median of 2 (2 3) drug classes. Number of administered drug classes negatively correlated with sympathetic markers, such as stress index (Spearman r=-0.50, p<0.000) and LF (Spearman r=-0.38, p=0.001), while positively correlated with parasympathetic markers such as mean RR (Spearman r=0.38, p=0.002), RMSSD (Spearman r=0.31, p=0.03) and HF (Spearman r=0.33, p=0.001). **Conclusions:** Potent sympathetic inhibition is a therapeutic goal in heart failure. Even though not all pharmacological classes act directly on the SNS, there is an incremental inhibition of sympathetic tone with addition of each pharmacological class.

Keywords: heart failure, autonomic nervous system, beta-blocker

THE EMOTIONAL IMPACT OF SOCIAL NETWORKS ON STUDENTS DURING THE SARS-COV-2 PANDEMIC

Anda-Nicoleta Nan[1], Andreea-Georgiana Nan[1], Marius-Cătălin Cosma[1], Munteanu Rareș, Cosmin Popa[1]

[1]UMFST Tîrgu Mureş

Background: For the last decades, social networking has become increasingly valued as a mean of expressing oneself, building relationships, boosting academic performances and being updated on international situation among students. The sudden transition from personal interaction to mostly online communication caused by the SARS-CoV-2 pandemic was associated with emotional distress among students. **Objective:** The purpose of the study is to describe the characteristics of social network using among Medical Students and to assess the potential correlation between the time spent online and its psycho-emotional impact. **Material and methods:** We conducted a descriptive transversal study during March 2021- April 2021. In this study we included a number of 217 General Medicine students from Medical Universities of Romania, which represented the target sample. The analyzed data was based on a Google Forms survey containing 42 questions grouped in 4 sections: general information, CFQ-7, AAQ-2, PSWQ. Microsoft Excel and Graph Pad Prism 9 were used for descriptive and analytic statistics. **Results:** 77% of the respondents were females, while only 23% were males. Regarding the current studying year distribution, 55,3% were clinical students and 44,7% were in preclinical years. 52% of preclinical and 46% of clinical students spent more than 6 hours online. 84,3% of the respondents confirmed that the time spent online has increased during the SARS-CoV-2 pandemic. We found a positive correlation between the number of hours spent online and the CFQ-7 score (more hours spent online were associated with more intrusive ruminating thoughts r=0,1897, p=0,0050). We also found positive correlations between CFQ-7, AAQ-1 and PSWQ scores. **Conclusions:** Most of the students spent more time online than before the pandemic. An increased time spent online leads to higher CFQ-7 score. More ruminative thoughts are correlated with lower psychological flexibility and increased worrying among medical students.

Keywords: Emotional distress, SARS-Cov-2 pandemic, Students, Social media

DYSFUNCTIONALITY IN LIVES' ROLES OF SCHIZOPHRENIC PATIENTS

Ana Vladescu[1], Tudor Şuteu[1], Medeea-Maria Roman[1], Aurel Nireștean[1], Emese Erika Lukacs[1]

[1]UMFST Tîrgu Mureş

Background: According to the evolution particular for schizophrenic patients, in terms of persistence and chronic symptoms - the great majority of subjects with this condition have an accountable deficiency or even worse, inability to function in their lives' roles. **Objective:** The study aim is to highlight the favorable prognostic factors in correlation with the functionality in the socio-professional roles of the patients diagnosed with schizophrenia. **Material and methods:** The study included 62 patients diagnosed with schizophrenia for at least 5 years. The sample of 62 patients was divided into two subgroups consisting of 32 patients living in the community and the other 30 patients being institutionalized. All the demographic data and the functionality in the roles of their lives, were assessed comparatively, both clinically and psychometrically and the degree of dysfunctionality being assessed through the global assessment scale of functionality- GAFS. **Results:** The socio-professional reintegration of the non-institutionalized patients is facilitated by the efficiency of the primary social support network and not by the community psychiatric assistance. 87% of subjects who manage to remain integrated in some professional roles have an inadequate or inferior status comparative to their academic and professional background. Therapeutic compliance is a favorable prognostic factor mainly in the first years of the evolution of the disease. **Conclusions:** The present study highlights the protective role of the effective primary social support networks that can blur the deficiency of psychiatric community assistance. Sociotherapies, including occupational therapies, are the most suitable therapeutic means accessible mainly to the institutionalized subjects but they proved to be less effective when it comes to rehabilitation and reintegration of the schizophrenic patients in their day by day lives roles.

Keywords: schizophrenia, life's roles, dysfunctionality

APOCRINE DIFFERENTIATION – AN IMPORTANT FEATURE IN THE DIAGNOSIS AND TREATMENT OF THE BREAST CANCER

Bogdan-Vasile Gherghel[1], Ciprian-Gelu Grigoroaea[1], Iulia-Maria Lupu[1], Rareș Georgescu, Mihaela Șincu, Ovidiu S Cotoi[1], Sabin Turdean[1]

[1]UMFST Tîrgu Mureş

Background: More than 20 morphological subtypes are encompassed within the invasive breast carcinoma, a tumor affecting women worldwide. One rare histopathological entity is the apocrine differentiation, a type of invasive ductal carcinoma which accounts about 0.3-1% of all breast cancers and has a predilection for females in the sixth and seventh decade. **Objective:** Our aim is to analyze the distinct morphological and immunohistochemical features recognised in apocrine breast carcinoma. **Material and methods:** We report the cases of two female patients (77 years old and 79 years old) admitted to Clincal County Hospital Mureș, with the suspicion of breast tumor. Breast biopsy was performed and the specimens were submitted to the Department of Pathology for examination. **Results:** Histopathological examination showed an infiltrative tumoral proliferation assigned with grade 2, respectively grade 3 of malignancy using the Nottingham score. At the level of the tumor we observed that some of the cells had apocrine features (abundant, eosinophilic, granular cytoplasm and enlarged nuclei with prominent nucleoli). Immunohistochemically the tumor cells described further with apocrine feature presented androgen receptor positivity. Based on the morphological features and the immunohistochemical profile of the tumor, the diagnosis of Invasive breast carcinoma of non-special-type (NST) with apocrine differentiation was set. **Conclusions:** A thorough examination of morphological and immunohistochemical features lead to the correct diagnosis. The presence of apocrine differentiation should be reported in the histopathological result because its presence has an effect on oncological therapy. An important aspect is the negativity of these tumors for estrogen and progesterone receptors.

Keywords: breast carcinoma, apocrine, androgen receptor, immunohistochemistry

IMPROPER CONSUMPTION OF ANTIBIOTIC MEDICATION, ADVERSE EFFECTS AND COMPLICATIONS CONCERNING DIGESTIVE SYSTEM

Clara Vasilache[1], Sabina-Ioana Dumitru[1], Septimiu Voidăzan[1]

[1]UMFST Tîrgu Mureş

Background: It is well known that antibiotic medication is often used improper , resulting multiple adverse effects and unwanted complications like antibiotic resistance, paradoxically increasing susceptibility to infection, and, also, antibiotics can damage intestinal microbiota. **Objective:** The purpose of this paper is to determine the perception, understanding, and knowledge of Romanians, the population of Transilvania in general, about antibiotics, probiotics and other drug classes. **Material and methods:** A cross-sectional study was performed using a questionnaire consisting of 30 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, 565 people completed the questionnaire. The majority of the respondents are female, 425 (75,2%) compared to only 140 (24,8%) male. Most have graduated university (55,4%), a lower percentage, 43.9%, have graduated high school or junior college, and a small percentage of 0,7% have graduated only general school. 58,6 % used treatment with several associated antibiotics. 18,6% of all participants believe that the flu and hepatitis can be healed with antibiotics in hight doses. 26% of all participants used antibiotic treatment for 3-5 times last year. 76.1% of them used probiotics in combination of antibiotic drugs. **Conclusions:** The results confirm the fact that most of Romanians start in large numbers to document and ask for the doctor's advice, 95,8% of respondents, have as source of information their clinician. There is still a difficulty to understand that antibiotics and probiotics are not the same and the different between bacteria and viruses, as well as viral pathologies being diagnosed by some individuals as bacterial.

Keywords: antibiotics, probiotics, antimicrobial resistance, bacteria

PREVENTION OF SPINE PAIN DUE TO SEDENTARISM AND OFFICE WORK

Theodora Ciulea[1], Adrian Ivănescu[1], Patricia-Maria Mălăncrăvean, Pal Fodor, Adrian Ivănescu[1], Patricia-Maria Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: Back pain is one of the most common forms of pain, and is experienced at least once in a lifetime by any person. This type of pain represents the most common reason why people turn to doctors, being among the main causes of long-term or short-term disabilities. Depending on the cause, it may pass, with or without pharmaceutical treatment, over a longer or shorter period of time, but if the cause is not removed, it may recur. **Objective:** Identify possible vicious attitudes caused by office work by performing anthropometric measurements. **Material and methods:** The information was accumulated by examining a group of 20 people whose work consists of sitting at the desk for 8 hours, 5 days a week. For each of these people, we performed anthropometric measurements, assessment of joint mobility, and based on them we made an appropriate exercise program for everyone. **Results:** By following the exercise program, 3-4 times a week for 2 months and re-examination with the same measurements as the initial ones, there were improvements in relieving the pain. These results show that, by exercising regularly, the subjects experienced back pain relief by 90% and change their sedentary lifestyle into an active one. **Conclusions:** Office work and a sedentary lifestyle pose a high risk for spine pain, but by adopting a healthy lifestyle and by performing exercises systematically , the pain can be alleviated and the quality of life can be improved.

Keywords: Back pain, Exercises, Spine, Sedentarism

A RARE CAUSE OF GASTROINTESTINAL BLEEDING, THE WATERMELON STOMACH - CASE REPORT

Diana Vladea[1], Adina-Elena Ursache[1], Ovidiu-Andi Zaharie[1], Diana Andreea Vascul[1], Raluca Ionela Truța[1], Ilie Marius Ciorba[1]

[1]UMFST Tîrgu Mureş

Background: Gave Antral Vascular Ectasia (GAVE) syndrome is a rare but significant cause of severe acute or chronic gastrointestinal bleeding in the elderly. The syndrome is also known as "watermelon stomach" because of the pathognomonic endoscopic appearance (rows of flat, red stripes on the lining of the stomach). **Objective:** The purpose of this paper is to emphasize proper medical management of a patient with GAVE syndrome, in order to prevent further complications and limit the progression of the disease. **Material and methods:** We present the case of a 62-years-old female patient with a remote history of liver cirrhosis, arterial hypertension, ischemic cardiomyopathy, and GAVE syndrome presenting asthenia, fatigue and vertigo. The patient was referred to the Gastroenterology clinic for further investigations. Clinical examination revealed pale skin, morbid obesity, peripheral edema and abdominal pain in the left hypochondrium. Her blood work-up showed: mild-anemia, leukocytosis, neutrophilia, elevated inflammatory markers. Upper gastrointestinal endoscopy (UGI) was performed revealing multiple angiodysplasias with bleeding stigma found at the antrum of the stomach for which novel endo-knife electrocoagulation was performed. Furthermore, a bleeding sessile polyp was found at the angular notch so a polypectomy was carried out to complete the assessment and treatment of the patient. **Results:** The patient was successfully treated with inhibitor pump protons, red blood cell mass, therapeutical UGI resulting in the improvement of the patient's clinical status and biomarkers in the following days. **Conclusions:** GAVE syndrome is an important condition to be considered in elderly women, often being diagnosed as a cause of chronic anemia in patients with other conditions such as liver cirrhosis or metabolic syndrome.

Keywords: GAVE syndrome, anemia, upper gastrointestinal endoscopy

A PATH TO DIAGNOSIS: RENAL FAILURE, THE FIRST SIGN OF HYPERPARATHYROIDISM?

Tania-Francesca Vulpeș[1], Stefan Sonea[1], Andrada Olivia Țăpîrdea[1], Ana Valea[1]

[1]UMF Iuliu Haţieganu Cluj Napoca

Background: Primary hyperparathyroidism is a common disorder with an insidious debut, most patients remaining asymptomatic. Symptoms range from hypercalcemia and osteoporosis to renal failure in the later stages of the disease. **Objective:** The aim of our paper is to highlight the importance of using both imaging and laboratory tests in the process of diagnosing and treating a case of primary hyperparathyroidism that initially manifests as acute renal failure. **Material and methods:** A 60-year-old man was hospitalized for further investigation of nitrogen retention syndrome, diagnosed during a routine medical examination. At admission the patient complains of nausea, muscle cramps, pain in the legs and constipation. Laboratory tests showed elevated values for total calcium (of 14.4 mg/dL, normal of 8.8-10.6 mg/dL), hypercalciuria (of 416 mg/24h, normal of 100-320mg/24h) and alkaline phosphatase (of 345 U/L, normal of 50-250U/L), suggesting increased bone resorption. In addition, there was a decrease of glomerular filtration rate (of 16mL/min/1.73m2) responsible for the increase in serum urea (of 120 mg/dL, normal of 10-45 mg/dL) and creatinine (of 4.05 mg/dl, normal of 07-1.4 mg/dL) and the occurrence of proteinuria (of 47.6mg/dL, normal of < 15 mg/dL). The hormonal profile indicated elevated parathyroid hormone (PTH) levels (of 881.2 pg/mL, normal of 11-67 pg/mL) and insufficient levels of 1.25dyhidroxyvitamin D. Thyroid ultrasound described a left hypoechoic parenchymal formation of 5 cm that extends into the upper thorax, deviating the trachea to the right by 1.5 cm (further confirmed by cervico-mediastinal computed tomography). **Results:** Based on the information provided by the lab tests and imaging, the diagnosis of left inferior parathyroid adenoma was formulated. The patient was served by the surgical service after prior preparation with diuretics in order to reduce calcium level. **Conclusions:** For the successful diagnosis and treatment of a case of primary hyperparathyroidism with atypical manifestations, both biochemical and imaging tests are required.

Keywords: primary hyperparathyroidism, renal failure, atypical manifestations, adenoma

UNDERSTANDING THE CLINICAL PHENOTYPE OF 19Q INTERSTITIAL DELETIONS: A NEW CASE WITH 19Q13.32-Q13.33 DELETION AND REVIEW OF THE LITERATURE

Alexandra-Aurora Dumitra[1], Ioana Streață[1], Mihai Ioana[1]

[1]UMF Craiova

Background: An interstitial 19q13.32 microdeletion has been described in only five patients so far. Clinical aspects varied with the modification's size and the genes found in the deleted region. Leal et. al (2009) reported a case with a 732 kb microdeletion and intellectual disability, facial dysmorphism, cardiac defects and scoliosis. Castillo et. al (2014) published a patient with a deletion larger than 1 Mb, and another two with smaller losses and less severe phenotypes. Later, Travan et al. (2017) reported a 327 kb microdeletion, and performed a literature review. **Objective:** We present the case of a 10 year old female patient with a 1.53 Mb deletion in the 19q13.32 region, and we try to better correlate genotype with phenotype. **Material and methods:** Clinically, the patient presented with cranio-facial dysmorphism, severe neurological and motor developmental delay, scoliosis and staturo-ponderal retardation. She is 126 cm. tall and weighs 23 kg. Further investigations showed multiple heart and kidney malformation aspects . The parents signed informed consents and blood was obtained from the patient for genetic analysis. DNA was extracted from peripheral venous blood and further assessed through aCGH (array comparative genomic hybridization). The platform and slides used were provided by Agilent Technologies. The data was analyzed with the Agilent Cytogenomics 5.0 software. A literature review has been performed. **Results:** The microarray analysis has identified an abnormal aCGH profile with a 1.53 Mb genetic material loss in the region 19q13.32-q13.33. Deletions in this region have been associated with phenotypes of variable severity. The affected region for this patient includes 45 genes out of which 27 are OMIM genes. **Conclusions:** The identified genetic variant might explain the clinical aspects described. Through the accurate mapping of the deleted region and in comparison to previously reported patients, we can expand the knowledge regarding genotype-phenotype correlations in such cases.

Keywords: del19q, aCGH, intellectual deficit, facial dysmorphism

HIGH SYMPATHETIC TONE PREDICTS 3-YEAR DEATH IN PATIENTS WITH HEART FAILURE.

Emanuel-David Anitei[1], Alexandra Aniței, Răzvan-Mihai Cărpușor[1], Dragoș Șulea[1], Paul Călburean[1], Marius Măruşteri[1]

[1]UMFST Tîrgu Mureş

Background: Heart failure is a clinical syndrome with an increasing global incidence and with a 5-year mortality rate of approximately 45-60%. Its complex pathophysiology includes maladaptive high sympathetic tone and recent studies revealed that is associated with impaired long-term survival. **Objective:** Our aim was to assess the association between autonomic nervous system tone and 3-year mortality in patients with heart failure. **Material and methods:** Consecutive patients hospitalized between January 2015 and December 2019 with a diagnosis of heart failure with reduced ejection fraction and 24-hour Holter ECG recording were selected. Of those, patients with 3-year follow-up were included. Autonomic tone was assessed by analyzing heart rate variability parameters from ambulatory ECG recordings. **Results:** A total of 216 patients were included, of which 139 (64%) were males with a mean age of 63 ± 12 years. 3-year mortality was 27% (58 patients). Patients who died during the follow-up had significantly higher mean heart rate (71±11 bpm vs 67±9 bpm, p=0.01) and higher minimum heart rate (46±10 bpm vs 36±10 bpm, p=0.001). Sympatho-vagal ratio was higher in patients who died as reflected by SD2/SD1 (0.80±0.26 vs 0.67±0.20, p<0.001) and predicted 3-year mortality (area under receiver operator curve of 0.732). **Conclusions:** Sympathetic tone assessment may become an important tool in predicting mortality in patients with heart failure. Our findings support the hypothesis that high sympathetic tone in patients is associated with a high mortality.

Keywords: heart failure, autonomic nervos system, sympathetic

LAMELLAR BONE FORMATION IN CORONARY ATHEROSCLEROTIC LESIONS: CASE SERIES

Vlăduț Gabriel Vasiliu[1], Maria Veciunca[1], Laura Chinezu[1]

[1]UMFST Tîrgu Mureş

Background: Heterotopic endochondral ossification with mature lamellar bone formation is considered a rare event, usually found in less than 10% of human coronary atherosclerotic lesions. Chronic exposure to inflammatory stimuli and smooth muscle cells or pericyte transdifferentiation seem to have an important role in the occurrence of these lesions. **Objective:** Here we report a case series of patients with lamellar bone formation in coronary arteries. The histopathological description and clinical correlation were detailed. **Material and methods:** All the autopsies were performed at Institute of Forensic Medicine Targu Mures. **Results:** Between 2015-2020, coronary arteries were examined in approximately 1200 autopsies.The lamellar bone formation in coronary arteries was found only in five cases (0,42%) of autopsies: three women and two men. The mean age of the five cases was 73 years (range, 61 to 91 years). Four out of five cases were associated with coronary atherosclerotic lesions with more than 70% stenosis and the cause of death was considered cardiac arrest. Massive acute myocardial infarction with cardiac rupture was described in one of these four cases. In the fifth case, bronchopneumonia foci and venous thromboembolism were found. In all cases, the coronary examination revealed, at the periphery of the atherosclerotic lesions, mature lamellar bone formation with osteocytes, the spaces between the trabeculae consisting of fatty bone marrow. **Conclusions:** Lamellar bone formation is a rare lesion found in autopsies and is not considered the main cause of lumen narrowing, being usually associated with severe coronary atherosclerotic lesions. No available treatment options are known, but prevention of inflammation and treatment of the atherosclerotic risk factors could be helpful in stopping the progression of the atherosclerosis.

Keywords: atherosclerotic lesion, mature lamellar bone, coronary arteries

TUBERCULOUS MENINGITIS ASSOCIATED WITH HYDROCEPHALUS: THE HISTOPATHOLOGICAL DESCRIPTION OF AN INTERESTING CASE

Maria Veciunca[1], Vlăduț Gabriel Vasiliu[1], Laura Chinezu[1]

[1]UMFST Tîrgu Mureş

Background: Tuberculous (TB) meningitis occurs as a complication of postprimary infection in infants and young children. It is a severe form of TB and leads to high rates of mortality and morbidity. The young age represents a high-risk factor for this condition with a peak incidence in 0-4 years old children, especially in high prevalence areas. Association with hydrocephalus worsens the outcome. **Objective:** The aim was to describe the histopathological characteristics of TB meningitis in a one-year-old male child with multiple associated comorbidities and to highlight the possible association with hydrocephalus. **Material and methods:** A full autopsy was performed at the Institute of Forensic Medicine of Targu Mures. **Results:** On macroscopic view, the carefully examination of the brain revealed a diffuse thickness of arachnoid membrane, hydrocephalus and degenerative changes into the paraventricular areas. Massive pulmonary edema and an increased, yellowish liver with a lower consistency were also seen. On microscopic examination, granulomatous inflammation into the subarachnoid space and in paraventricular areas was seen: epithelioid macrophages, Langhans' giant cells along with lymphocytes, plasma cells, fibroblasts with collagen, and characteristic caseous necrosis in the center. Old infarction areas, small foci of haemorrhage due to diapedesis and thrombi were described also into the paraventricular areas. Massive acute pulmonary edema was confirmed and liver steatosis was observed. **Conclusions:** An important determinant of poor outcome in TB is the host inflammatory response. The formation of a characteristic thick exudate at the base of the brain could precipitate cerebral ischemia and infarction. Therefore, the disturbance of the flow of cerebrospinal fluid causes hydrocephalus and raised intracranial pressure, which worsens the outcome of TB.

Keywords: tuberculous meningitis, mycobacterium tuberculosis, hydrocephalus

TRYSOMY 21- DOWN SYNDROME IN THE NEONATAL PERIOD

Nadina Tîrău[1], Manuela Camelia Cucerea[1]

[1]UMFST Tîrgu Mureş

Background: Down syndrome (DS), also known as trisomy 21, is a common genetic condition that is the result of an additional copy of chromosome 21. Although the phenotype is variable, there are usually several characteristics that allow the experienced clinician to suspect the diagnosis. **Objective:** We aimed to see what were the first care offered to newborns with DS in clinics in counties in northwestern Romania and the results obtained by doctors involved knowing that the care of newborns with DS can be complicated and may involve a multitude of immediate and long-term medical problems and psychosocial problems. **Material and methods:** In this retrospective observational study we included newborns diagnosed with DS from 2012-2019 in the counties of northwestern Romania, studying discharge tickets our cases were analyzed in order to validate/invalidate the hypothesis and achieve the proposed goal. Demographic data such as age, weight and sex were collected. **Results:** Out of the seventeen children included in the study, 61% were female. Among the total number of patients, 2/3 were born on term and 44% of mothers were between 26-35 years old. Ouer newborns had associated medical conditions which were either present at birth or developed over time. These could often be managed by medication or other medical care. Comorbidities found in our cohort were: heart problems (frequently present at birth), thyroid abnormalities, hearing and vision problems and gastrointestinal problems. **Conclusions:** Late diagnosis of Trisomy 21 (T21) ay result in delaying the early intervention and the appropriate therapy for certain risk conditions, such as congenital heart disease. They must be detected and treated, otherwise they contribute to the morbidity and mortality of these children, in addition, resulting in an impact on physical and psychological development.

Keywords: Chromosome21, Medical associated condition in children with Down, Maternal age, Tratament in Down Syndrome

THE IMPORTANCE OF THERAPEUTIC EXERCISE IN THE MANAGEMENT OF DIABETIC FOOT

Richardo Gabriel Albert[1], Pal Fodor, Mariana Tilinca[1], Patricia Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: Diabetes mellitus is a chronic disease characterized by hyperglycaemia induced by disturbance of insulin secretion and / or resistance of peripheral cells to the action of insulin. The approach of the therapeutic plan of the patient with DM includes diet, physical activity and pharmacological treatment, resulting in a continuous multidisciplinary approach. **Objective:** The objectives of the study are to implement a set of specific physical exercises, in addition to diet and medication treatment. Physical therapy exercises aim to promote peripheral circulation, lymphatic drainage and stimulate the peripheral nervous system, in order to prevent and / or improve the symptoms of diabetic foot syndrome. **Material and methods:** The study was conducted between January and April 2021 on a number of 10 patients, women and men, aged 35-45 years. After performing the initial evaluation, an exercise program was implemented for a period of 4 weeks, at the end of which a re-evaluation was performed. Inclusion criteria include: unbalanced diabetes diagnosed at least 10 years ago, without other severe comorbidities. The study was carried out at the Emergency County Clinical Hospital Tg. Mures, Diabetology department. **Results:** Following the monofilament test, the peripheral echo-Doppler examination and the objective examination of the lower limbs, a significant improvement of the symptoms was found. Blood perfusion was determined by measuring the pulse in the femural, popliteal, posterior tibial and pedical arteries, being improved after physical therapy. When tested by the Toronto Clinical Neuropathy Scoring System screening method, performed both at the hospitalization of the patients and at the end of the study, favorable results were obtained with values □□□□□□□□ 0 and 7 at the end of the implemented program. **Conclusions:** According to the results obtained, the prevalence of the desired symptoms on the pathology is diminished. Patients have improved glycemic control, decreased stress and fatigue in the lower limbs and better sleep quality.

Keywords: Diabetic foot, prophylaxis, recovery, control

INTESTINAL TUBERCULOSIS AS A DIFFERENTIAL DIAGNOSIS IN A CASE OF ILEAL PERFORATION

Fiona Lehmann[1], Felix Gilleßen[1], Angelina Hamatdinova[1], Laura Chinezu[1]

[1]UMFST Tîrgu Mureş

Background: In 2019, 1.5-million people, diagnosed with tuberculosis, died. With a mortality of 40%-55%, ileal perforation is a fatal complication of enteric fever (65,6%), abdominal tuberculosis (30,4%), and non-specific causes (4%). Intestinal tuberculosis (ITB) is a rare condition, being the 6th most common extrapulmonary location of tuberculosis, most of the cases involving the ileocecum (64%). Due to the high similarity with other intestinal diseases (Crohn´s disease, malignancies), ITB is mostly recognized in the late stage. Therefore, for an early and correct final diagnosis, it´s important to know the clinical and histopathological characteristics of ITB. **Objective:** The aim of our study is to emphasize the importance of intestinal tuberculosis as a differential diagnosis of other intestinal diseases. **Material and methods:** A 58-year-old woman, who died at home, had no known pre-existing conditions. Necropsy revealed massive bronchopneumonia and extensive peritonitis, caused by ileal perforation. Differential diagnosis was made with Crohn´s-disease (CD), other inflammation, and ulcerative tumor. **Results:** On microscopy, the examination of the lungs revealed massive bronchopneumonia with abscessed foci. On the examination of the ileal wall, an area of discontinuity, with necrotic tissue, and extensive peritonitis on the surface of the serosa were seen. Around the area of discontinuity, numerous granulomatous lesions consisting of caseous necrosis, epithelioid cells, and giant multinucleated Langhans cells were identified. The final diagnosis was ileal tuberculosis and the cause of death was a septic shock. **Conclusions:** Opposed to CD, a progressive disease with limited treatment options, early detection of ITB and subsequent anti-tuberculous drug therapy leads to good outcomes and in most cases prevents fatal intestinal perforation. Unspecific signs and symptoms of ITB often mimic those of other intestinal diseases. The final and precise diagnosis is based on histopathology (microgranuloma in CD; multiple, confluent, large granulomas, central caseous necrosis, epithelioid cells, and giant multinucleated Langhans cells in ITB).

Keywords: intestinal tuberculosis, ileal tuberculosis, differential diagnosis, Crohn´s disease

COVID-19 INFECTION ASSOCIATED WITH HERPES SIMPLEX REACTIVATION

Fiona Lehmann[1], Felix Gilleßen[1], Angelina Hamatdinova[1], Erika Ban[1]

[1]UMFST Tîrgu Mureş

Background: April 2021. The World health organization counts 142-million people infected with COVID-19 and 3-million people died. Next to the respiratory, COVID-19 affects also other systems. Next to rashes, urticaria, and pruritus, there are COVID-19-patients who present with reactivation of Herpes zoster and simplex. One known risk factor for reactivation of herpes viruses is immunosuppression. Different studies have shown that COVID-19 may cause hematological changes such as lymphopenia, neutrophilia, a specific decline in CD4+ and CD8+ T lymphocytes, and thrombocytopenia. These hematologic variations are potentially linked to various manifestations and long-term effects of COVID-19, like the reactivation of herpes simplex. **Objective:** The aim of our study is to emphasize the importance of post- COVID long-term complications. **Material and methods:** We present a 46-year-old male patient, without other diseases, with a history of varicella infection in early childhood, without complications. In October 2020, he presented a moderate symptomatic COVID-19 infection which lasted 3 weeks. No oxygen-therapy was needed. In January 2021 he developed a bullous formation on the lower abdomen with local pruritus. It disappeared after 3-4 days, left brownish marks, and reappeared in various places at the abdomen, genital regions, and face with the same course of action. **Results:** Laboratory results showed positive post-COVID and IgG & IgM herpes simplex antibodies. The final diagnosis was a COVID-19 infection associated with Herpes Simplex reactivation. The treatment was local and systematic aciclovir therapy. Recurrence continued after 7 days of systematic therapy, then abruptly stopped. **Conclusions:** Post-COVID-induced hematologic changes with a decrease in T-lymphocyte concentration might lead to Herpes-simplex-reactivation. This case marks once more the importance of post-COVID long-term complications. Besides the well-known, neurological deficits and loss of smell and taste, depression, and insomnia, we should draw our attention also to the immune system impairment that can follow a COVID-19 infection and should consider testing for such an impaired regularity.

Keywords: COVID-19, Herpes virus, Reactivation, Immune suppression

CASE REPORT OF A YOUNG PATIENT WITH DAILY ASTHMA LIKE ATTACKS.

Felix Gilleßen[1], Fiona Lehmann[1], Angelina Hamatdinova[1], Erika Ban[1]

[1]UMFST Tîrgu Mureş

Background: Asthma bronchiale is one of the most common chronic inflammatory diseases, diagnosed in children and young adults with an incidence of 7-10% in the age group of 0 □□□□□□□□□□□□□ While in approximately 4,7% of the U.S adults are panic disorder at a certain time during their life observed. Panic attacks can simulate clinically asthma attacks with dyspnoea, feeling of suffocation and hyperventilation lasting for 5-10 minutes with increasing intensity of symptoms which may resemble acute asthma attacks. The ß-adrenergic drugs, used for asthmatic therapy, may give a short relieve but also increase anxiety and therefor might lead to a vicious cycle, if once a wrong diagnosis was provided. **Objective:** With this case report we want to emphasize the importance of panic disorders as differential diagnosis for asthma bronchiale. **Material and methods:** A 27-year-old male patient with an asthma bronchiale diagnosis, describes daily mild-moderate asthma attacks. He is under current medication with Salbutamol 100mg (1x daily), Salmeterol/Fluticasone 50mg/250mg (1x daily) and Desloratadine 5mg. Shortly after his asthma diagnosis the diagnosis of panic attacks was made, therefore he received Olanzapine 5mg and Paroxetine 30mg. At the clinical examination, the patient was lethargic and presented on auscultation a typical asthmatic wheezing. The prick puncture tests for aero-and-food-allergens where all negative. **Results:** During the check-up, no specific asthma sign or symptom could be revealed. After tapering down Olanzapine and Paroxetine therapy, the breathless attacks became more often and resistant to anti-asthmatic therapy and the urticaria was more prominent. Our final diagnosis is an acute panic attack disorder with a slight airway hypersensitivity and possible wheezing episodes. **Conclusions:** This example shows that in certain cases of resistant asthma with everyday attacks despite the therapy the possibility of panic attack disorder must be considered because both pathologies resemble each other in their clinical occurrence.

Keywords: Asthma-Bronchiale, Panic disorders, Vicious cycle

PHYSICAL DEVELOPMENT AND PREVENTION OF PATHOLOGIES OF CHILDREN FROM SWIMMING

Marton Zoltan[1], Nicolae Neagu[1], Patricia Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: Swimming, is one of the most coordinated and harmonic motion of the human body inside the water. The combined action of the superior and inferior limbs, is a physical activity which is dispersed throughout the whole world. This activity can be practiced by all types of subject, but with some exceptions can be suggested to all individuals. Swimming is one of the physical activities with less restrictions and more benefits. **Objective:** The following study has it's purpose to prove the importance of swimming in the development of the children. To improve the health of the children taking part in the following study. To prove that swimming has many health benefits. **Material and methods:** For this study we are using different swimming methods and styles. We had also questioned parents about the state of their children before, during and after the research for example we asked them the state of their health, height, weight, how they sleep and if they have any pathologies. We did our own measurements of their height, weight and we measure their pulse in every week, and keep the evolution of their endurance by the number of meters the children can swim. The study is following 20 children ages between 5 and 12 from both gender, witch are taking swimming lessons. The study takes part 3 months. **Results:** The obtained results reveal the following: weight loss up to 2 kg to overweight children in 2 weeks; better sleeping in 2 weeks; parent's response that their children tend to be more obedient because their energy is more focused. **Conclusions:** In conclusion we strongly believe that swimming is very beneficial to the development and the overall health of the children. Our results so far are positive. One in particular, the overweight children results show that swimming is very beneficial in combating this major problem.

Keywords: Swimming, Improvements, Development, Children

ACUTE NON-TOXIC MEGACOLON – A RARE OCCURENCE – A CASE REPORT

Ovidiu-Andi Zaharie[1], Diana Andreea Vascul[1], Diana Vladea[1], Adina-Elena Ursache[1], Sebastian George Vancea, Ilie Marius Ciorba[1]

[1]UMFST Tîrgu Mureş

Background: Ogilvie syndrome, also known as Acute Colonic Pseudo-Obstruction (ACPO), is a particular entity of colonic dilatation that occurs in the absence of an underlying mechanical or anatomical etiologic factor. **Objective:** This case report aims to present the evolution of a 61-year-old male, diagnosed with Ogilvie syndrome after being admitted in our clinic, priorly diagnosed and treated for paranoid schizophrenia. **Material and methods:** We report the case of a 61-year-old male, presenting diffuse abdominal pain, emesis, and bloody stools. The clinical examination revealed abdominal pain predominating on the left flank and a digital rectal exam positive for fresh blood; surgical evaluation excluded an acute abdomen. From his medical records, we note that the patient has been diagnosed with paranoid schizophrenia, under psychotropic medication. The blood screen revealed severe anemia with mild leukocytosis, elevated blood glucose, and dyselectrolytemia. An upper gastrointestinal endoscopy was performed without relevant findings, followed by a partial colonoscopy that showed a hemorrhagic colitis. A contrast-enhanced CT scan of the abdomen was performed showing an acute dilation of the right colon, associating a distended small intestine up to the ileal level, without an obvious cause of obstruction. The patient underwent supportive treatment associating Pantoprazole, Metoclopramide, Metronidazole, Rifaximin, IV fluid replacement therapy with supplemental iron, magnesium, and B vitamins. **Results:** On account of severe emesis, the patient was switched to nil per os and IV treatment with alleviation of symptoms thus leading to the diagnosis of Ogilvie syndrome caused by the patient's psychotropic medication, while excluding alternative causes, be it vascular or infectious. **Conclusions:** Ogilvie syndrome is a rare disorder characterized by abnormalities affecting the peristalsis of the colon, generally caused by surgery, trauma, or medication such as in our case, with autonomic innervation disturbances, leading to this non-toxic, non-obstructive syndrome.

Keywords: Ogilvie syndrome, paranoid Schizophrenia, psychotropic medication

COR TRIATRIATUM DEXTRUM: CHALLENGING MANAGEMENT AND TREATMENT IN PEDIATRIC PATIENTS

Diana Andreea Vascul[1], Ovidiu-Andi Zaharie[1], Narcis Ungureanu[1], Adina-Elena Ursache[1], Diana Vladea[1], Daniela Toma[1]

[1]UMFST Tîrgu Mureş

Background: Cor-triatriatum dextrum is an extremely rare congenital cardiac defect that consists of complete persistence of the right valve of coronary sinus that causes division of the right atrium, resulting in the presence of three atrial compartments. The smooth portion of the right atrium receives venous blood from the inferior vena cava, superior vena cava, and coronary sinus while the trabeculated portion contains the right atrial appendage and the opening of the tricuspid valve. **Objective:** This paper aims to report a case of cor triatriatum dextrum diagnosed during hospitalization for more extensive investigations. **Material and methods:** We present a case of a 12-year-old girl known for double atrial septal defect (ASD), sinus node dysfunction (SND), low ponderal index (p11%), and subclinical hypothyroidism, who was admitted to the Pediatric Cardiology Clinic from Târgu-Mureș. The clinical exam performed at admission detected a systolic murmur III/6 and a split S2 heart sound. In order to establish a certain diagnosis of the patient, additional examinations were performed. **Results:** The ECG and ECG Holter revealed sinus bradycardia that alternates with accelerated junctional rhythm, the Cardiac Stress Test showed chronotropic incompetence, the Transesophageal Echocardiography exposed a fibroelastic membrane that divides the right atrium into two chambers, double atrial septal defect with a left to right shunt and dilatation of the pulmonary trunk and branches that were also found on thoracic X-ray. Due to congenital cardiac defects findings and cardiac rhythm disorders, a surgical repair with simultaneous implantation of a VVIR pacemaker was effectuated. Postoperative evolution was decelerated but favorable, prolonged by the following complications: right-sided and apical pneumothorax, bilateral pleural effusion, right infrahilar pneumonia, and transitory hypokalemia, all successfully remitted under treatment. **Conclusions:** Cor triatriatum dextrum is an exceptionally rare congenital cardiac defect that requires surgical repair for normal cardiac function and for adequate child development.

Keywords: Cor triatriatum, septal atrial defect, sinus node dysfunction

PULMONARY REHABILITATION OF PATIENTS WITH ANKYLOSING SPONDYLITIS

Andrei Apetroaei[1], Mirela Parvu[1], Patricia Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: Pulmonary rehabilitation is a set of specific and analytical kinetic techniques. These techniques specifically aim at the recovery of physiopathological mechanisms that are the cause of the degradation of respiratory function in the evolution of ankylosing spondylitis. **Objective:** The aim of this study is to systematically assess the results of published data and to summarise the state of knowledge regarding the impact of respiratory physiotherapy programmes on quality of life in patients with ankylosing spondylitis. **Material and methods:** The search for studies in the literature was carried out on the following electronic databases: Medline, Cochrane Library, PubMed.A total of 848 patients were examined, and a number of 16 studies are included in the analysis. **Results:** At The Basdai score (Bath Ankylosing Spondylitis Disease Index) , exercises that are based on global posture re-education (39%) as well as the Pilates method (30%) bring more significant improvements. All methods show an increase in thoracic expansion, but exercises based on the Pilates method (43%) and overall posture reeducation (36%) prove superior to the other methods studied in this analysis. There are no significant differences for the BASFI score (Bath Ankylosing Spondylitis Functional Index) between the exercises evaluated. **Conclusions:** The results of this analysis suggest that a program comprising exercises in the broad sphere of respiratory physiotherapy is an adjuvant therapy to improve the quality of life.Regular exercise, postural training and physical therapy is an important part of treatment and can offer a range of benefits from pain relief to improved resistance and flexibility of Patients with SA

Keywords: ankylosing spondylitis, respiratory exercise, pulmonary rehabilitation, breathing exercise

THE ROLE OF KINETOPROPHYLAXIS IN THE DEVELOPMENT OF PSYCHOMOTOR SKILLS

Malina Maria Avram[1], Nicolae Neagu[1], Patrica Maria Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: Over time, children have lost interest in sustained physical activity. This sedentary lifestyle can lead to growth and physical development disorders, which have a negative effect on the development of psychomotor skills. Psychomotor skills in children can be developed through various playful activities, activities that are an important element in the learning process. **Objective:** The objective of the study is to demonstrate that the practice of physical exercise or a sport helps in the process of developing the child's psychomotor skills. **Material and methods:** The study included the parents of 30 children aged 10-14 years, from the Ţigmandru Gymnasium School. Study participants completed a questionnaire consisting of 21 items. **Results:** Analyzing the parents' answers, based on the questionnaire, we can say that 100% of the parents are aware that physical activity is beneficial for the child's growth and development process. However, only 45% of subjects practice sports systematically. These subjects were found to have no problems with self-confidence, spatial orientation, or communication with other individuals. At the remaining 55%, according to the answers received, it can be stated that there are various communication problems, these presenting states of anxiety and learning difficulties. **Conclusions:** Based on the answers of the subjects we can say that the physical activity practiced systematically is a major factor that can influence the growth and development of the child both socially and intellectually.

Keywords: Skills, Kinetoprophylaxis, Development, Psychomotor

THE CORRELATION BETWEEN DIET AND CARDIOVASCULAR DISEASE

Andrada Raicea[1], Monica Tarcea[1]

[1]UMFST Tîrgu Mureş

Background: Cardiovascular disease is currently the leading cause of death in both industrialized and developed countries as well as in developing countries. During the past years, chronic cardiovascular disease has been the major dominant factor in overall global mortality. **Objective:** The purpose of this paper was to evaluate the correlation between lifestyle risk factors and cardiovascular diseases, in order to prevent complications and improve community preventive measures. **Material and methods:** We have registered a group of 120 patients of the Institute of Cardiovascular Diseases and Transplant Targu Mures, in September 2020- March 2021, who answered to a validated questionnaire, after giving their consent. We added also their blood laboratory parameters for monitoring. **Results:** The frequency of cardiovascular disease was higher for males (66%), and for age over 60 years old (72%), obesity was present at 71% of them, sedentarism for 46%, and abdominal circumference greater than 102 cm was registered at 43% of males and 10% of females. Other risk factors like hypertension were present at 78% of our patients, high levels of total cholesterol for 24% of them, and low levels of HDL-cholesterol at 54%. Analyzing the lifestyle profile, we found that 60% of them were smokers, 76% were consuming alcohol in excess, while 55% had a daily low fruit and vegetable intake and high fats consumption, and 50% of them were not checking the amount of the salt on their food labels. **Conclusions:** We found that cardiovascular disease has an increased incidence in people with an unhealthy lifestyle, with the main risk factors that lead to complications like high blood pressure, diabetes, atherosclerosis, problems that can be managed by developing a proper primary prevention system.

Keywords: cardiovascular disease, risk factors, complications

THE INCIDENCE AND PREVENTION OF LOWER LIMB SPORT INJURIES AMONG UMFST STUDENTS

Cezara-Ilinca Stanciu[1], Tatiana Trif[1], Iasmina Santa[1], Klara Brînzaniuc[1], Nicolae Stanciu[1]

[1]UMFST Tîrgu Mureş

Background: A significant number of UMFST students are practicing various sports including football, cycling,

handball, volleyball, martial-arts, fitness, tennis or basketball. Whether is recreational, amateur or professional sports, the stress the players are under is one the major factors associated with increased risk of injury. It is generally known that increasing the joint limberness leads to better performance and reduces the number of injuries. **Objective:** To examine the effects of physical interventions aimed at reducing injury occurrence, and determine the incidence of traumatic events in athletes from this university. **Material and methods:** Cross-sectional study including a 79 students database from UMFST. A survey was sent and statistical analysis was performed using Microsoft Excel and MedCalc19.8, using a 0.05 level of significance. **Results:** The subjects' mean age is 22.07, including 62% males and 38% females, of which 42% are practicing professional sports, 38% amateur, and 20% recreational sports. The highest intensity of trainings (minutes/week) reaches a value of 1400, while the lowest represents 100 with a mean of 406 minutes/week. There is no statistically significant association between the intensity of physical activity and the injury occurrence (p=0.33). The association between the consumption of dietary supplements and the injury prevention shows that the vitamin supplements cannot be considered a way of prevention, but most likely they may contribute to maintaining a satisfactory physical state (OR=1.60). There is a statistically significant association between the training intensity and the cause of injury-technique errors (p=0.044). Another association found is between practicing professional sports and the occurrence of injuries (OR=4.21, p=0.016, C.I. 95%). **Conclusions:** The results support that high-intensity trainings lead to technique errors in professional athletes, such as influencing gait biodynamics and altering biomechanics. However the assessment of vitamins, minerals and protein indicates a potential link between dietary supplements and underlying injury prevention but there is insufficient data to indicate that.

Keywords: Sports, Injury, Prevention, Dietary Supplements

CLINICAL EVOLUTION OF POSTOPERATORY PATIENTS WITH CEMENTED HIP ARTHROPLASTY

Adina-Melisa Achim[1], Octav Marius Russu[1], Patricia-Maria Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: The hip joint is one of the most used joints, being prone to the appearance of degenerative, arthrosis processes. As the degeneration progresses, symptoms such as: severe pain, loss of mobility and stiffness may appear, which could lead to functional incapacity. The pain can make movement difficult, which could hinder the carrying out of daily activities, leading to a decrease in quality of life. **Objective:** The aim of this study is to highlight the therapeutic efficacy of postoperatory recovery for patients with cemented hip arthroplasty. **Material and methods:** 9 subjects from the Orthopedics and Traumatology Clinic of SCJ Mureș were included in this study. They were verbaly asked to complete the Harris hip score modified, presurgery and postsurgery. The subjects were reached through phone. **Results:** To put in evidence the therapeutic efficacy, we compared the average value of the Harris scores applied preoperatory and one week after the surgery for the 9 subjects. We found a 21.33 points difference between the 2 evaluations, the average preoperatory value being 13.55 and the postoperatory value 34.88 points. **Conclusions:** Analysing the results, we can confirm that the recovery programme has a great value in rising the quality of life of patients, so they can become capable of doing daily activities.

Keywords: hip arthroplasty, Harris hip score modified, recovery

---

GENERAL AND PARTICULAR IN THE PROCESS OF COMMUNICATION WITH GERIATRIC PATIENTS

Adrian Muresan[1], Patricia-Maria Mălăncrăvean, Pal Fodor, Traian Moldovan[1], Patricia Mălăncrăvean[1]

[1]UMFST Tîrgu Mureş

Background: Physical therapy can be defined as therapy that deals with body movement through certain programs designed for various pathologies. According to the definition accepted by Malta (03-05-2008) and extended to Copenhagen (06-09-2008) by the European Union of Specialists, geriatric medicine is a medical specialty having as object physical, mental, functional and social aspects of acute, chronic, recovery, preventive and terminal care addressed to elderly patients. Communication with geriatric patients in the therapeutic recovery process is a challenge for therapists, and the quality of recovery programs can be affected. **Objective:** Highlighting the importance of communication, in the interaction of the physiotherapist with the geriatric patient, for the

efficiency of the recovery program of this category of patients, who need a rigorous recovery to improve their quality of life. **Material and methods:** The study period was 12 weeks, at the Recovery Medical Center "Ralmed" Sighisoara on a sample of 15 patients aged between 65 and 82 years. As evaluation methods we used: the observation method; standardized scales, such as the assessment of static and dynamic balance (Tinetti), the assessment of the risk of falling J.H. Downton, and the cognitive status of the subjects is specified in the medical file. The data obtained were entered in a master table, and will be interpreted statistically. **Results:** Out of a total of 15 patients at high risk of falling, 13 subjects had moderate to severe forms of dementia. Following a recovery program, including proprioceptive facilitation exercises and balance exercises, over a period of 10 days, 61.53% of subjects with dementia showed slight improvements, and a percentage of 100% of patients without dementia showed significant improvements. **Conclusions:** In conclusion, geriatric patients with dementia as associated pathologies require a longer time and increased attention to treat a condition, compared to geriatric patients who do not show signs of dementia.

Keywords: Geriatrics, Physical Therapy, Dementia

DESCENDING COLON ADENOCARCINOMA DISCOVERED IN A PEDIATRIC PATIENT

Ionela Georgiana Bodiu[1], Mihaela Nicoleta Mihalache[1], Andreea-Cătălina Munteanu[1], Lucia Sanda Voicu[1]

[1]UMFST Tîrgu Mureş

Background: Colorectal carcinoma is an extremely rare pathology in the pediatric population. However it is the most common primary solid gastrointestinal malignancy in children and constitutes approximatively 1% of pediatric neoplasms. **Objective:** Presentation of a rare case of colon carcinoma in a pediatric patient. **Material and methods:** A 14 year old girl presented with a two-month history of recurrent abdominal pain , intermittent bloody diarrhea, non-thermometrised febrile status and chills. Physical examination relieved cachexia, pale skin, fever, dry cough, supple abdomen with pain in the left flank where is palpated an indurated mass up to 4 cm below the costal rim. **Results:** Laboratory findings revealed normocytic and normochromic anemia, an inflammatory syndrome and the kidney and hepatic functions within normal limits. The abdominal ultrasound revealed: abdominal tumor formation in the left flank and bilateral renal cysts. Abdominal CT: bilateral renal cysts; the descending colon's lumen is narrowed by a mass with the dimensions of 46/45/69 mm; multiple regional pericolic adhenopathies; fluid collection in the pouch of Douglas. The surgical team removed the tumor located on the descending colon, performed a termino-terminal anastomosis of the descending colon and removed 28 mesenteric lymph nodes. Histopathological diagnosis revealed well differentiated descending colon adenocarcinoma, infiltrating the subserosa, with lymphatic and perineural invasion. The tumor metastasizes in 5 of the 28 sampled lymphonodules. Tumor free resection margins. pT3N2a tumor staging. Dukes-MAc staging: C2. The patient received chemotherapy FOLFOX 4 protocol with favorable evolution and is still under follow up. **Conclusions:** Colorectal carcinoma is a rare malignancy in children in which survival depends on the complete resection of the tumor and the sentinel lymph nodes combined with adjuvant chemotherapy to eradicate micrometastases.

Keywords: adenocarcinoma, chemotherapy, pediatric patient

POSTER - DENTAL MEDICINE

ASSESSMENT OF IN VITRO PERFORMANCE OF XP-ENDO SHAPER IN THE PREPARATION OF CURVED CANALS

Imo Güthenke[1], Monica Monea[1]

[1]UMFST Tîrgu Mureş

Background: The use of single Ni-Ti files increased during the last decade, as scientific data reported that this approach reduces the time needed for endodontic preparation, costs, risk of cross-contamination, with no adverse effect regarding the canal cleanliness. **Objective:** The aim of our study was to evaluate de performance of single file XP-Endo shaper system in the preparation of curved root canals in plastic blocks. **Material and methods:** We used curved root canals in 20 plastic blocks instrumented with XP-Endo files and 10 similar canals shaping with ProTaper files considered as gold standard, as both systems use continuous rotation motion. For better evaluation of the transported areas, the root canals were filled with methylene blue. The prepared canals were evaluated based on Image J computer program at different levels starting from the apex. The deviation of the preparation to the external or internal curvature was calculated by measuring the distance from the final contour of the preparation to the corresponding edge of the plastic block and by comparing it with the distance measured on the blank sample. Statistical analysis was based on chi-squared test and the level of significance was set at a value of $p<0.05$ (95% confidence interval). **Results:** XP-Endo produced a continuous tapered preparation, without important deviations from the initial shape. The greatest transportation was noticed at 6 mm (more to the outer side) and 3 mm (more to the inner side) of the curvature. **Conclusions:** XP-Endo file system can be successfully used for the mechanical preparation of curved canals, as there were limited transportations from the initial shape and there were no separations of instruments during the experiment.

Keywords: Protaper Rotary System, XP-endo Shaper, endodontic treatment, curved canals

---

STATISTICAL STUDY REGARDING THE LONG TERM SOFT TISSUE STATUS IN PATIENTS WITH FIXED DENTAL PROSTHESES

Tüzes László[1], Dr. Vlasa Alexandru[1]

[1]UMFST Tîrgu Mureş

Background: The primary goal of the fixed prostheses is to reinstate function and aesthethics, with long-lasting, biocompatible restorations while also limiting oral disease formations. Biofunctionality and the harmony between the periodontal tissues and the prostheses is significant for the durability and the aesthetics of the prostheses and the periodontium. **Objective:** The aim of the current study was to investigate the effects of different types of fixed prostheses on periodontal tissues, examine the association of gingival biotype and possible gingival recessions in relation to prosthesis types. **Material and methods:** Included in the study were 68 patients, mean age 44.82 years, wearing fixed dental restorations for at least 5 years. Study group was divided into two sub-groups, based on the type of their dental prostheses: Sub-group 1: cobalt-chrome ceramic prostheses (n=34); Sub-group 2: zirconia-based prostheses fabricated by the CAD/CAM technique (n=34). Periodontal examinations were accomplished using the Pappilary Bleeding Index (PBI) and the Silness Löe Plaque and Gingival Index (PI); (GI). The gingival biotype was examinated using the Probe Transparency Method (TRAN). The gingival retraction was evaluated using a 0.5 mm ball-ended probe with color markers at 3.5 and 5.5 mm. Statistical analysis was made using GraphPad, Kolmogorov-Smirnov Test of Normality, Independent T-test **Results:** In the case group we compared the two sub-groups in regards of gingival retraction, bleeding index, and the gingival inflammation index these measurements showed no significant variations amongst each other. But when we compared them with the different gingival biotypes the thin one showed higher rates of bleeding, inflammation and retraction in both groups. **Conclusions:** In conclusion the thin gingival biotype is more frequently associated with gingival recession, inflammation and bleeding than the thick biotype which is more opposing.

Keywords: CAD/CAM, Silness Löe, probe transparancy method, gingival index

COMMON ERRORS IN DAILY INTRAORAL SCANNING

Maximilian Ilea[1], Cristina Molnar-Varlam, Tudor Sirbu[1], Cristina Molnar-Varlam[1]

[1]UMFST Tîrgu Mureş

Background: Digital or not, a dental impression has to be accurate. Even though nowadays digital dentistry has reached an impeccable level of precision, offering cutting edge, innovative solutions for various dental challenges, there are still a few errors that may occur during the intraoral scanning protocol. **Objective:** The purpose of this study was to highlight the most frequent human errors that directly affect the quality of the digital impression taken with a Dental Wings series 7 intraoral scanner. **Material and methods:** A total of 140 intraoral scans were selected, all of them acquired during the fall and winter of 2019, in a dental office from Targu Mures, Romania. One expert evaluator from Cluj-Napoca, Romania listed three categories of errors as a foundation for our study: incorrect powder placement, faulty scanner handling and insufficiently scanned areas. **Results:** The incorrect powder placement was the most common error which occurred during the scanning protocols, followed by the faulty scanner handling and lastly, the insufficiently scanned areas. **Conclusions:** The most common problems that arise during an intraoral scanning protocol are not directly related to the devices' hardware or software . Mostly, it is about human errors which can be eliminated by following a strict chairside routine.

Keywords: digital, impression, scanner, powder

INTRAORAL SCAN METHOD FOR FULLY EDENTULOUS UPPER JAWS

Maximilian Ilea[1], Tudor Sirbu[1], Cristina Molnar-Varlam[1]

[1]UMFST Tîrgu Mureş

Background: Acquiring a dental impression is a mandatory step in the fabrication workflow of a complete removable denture. Both the conventional and digital methods of obtaining an impression have their flaws. Elastomeric impression materials are known for its bubbles and volumetric expansion, while digital impressions are known for its faulty stitching process. **Objective:** Stitching the digital images acquired during an intraoral scanning session may turn out to be faulty, especially when the scanning site consists of a fully edentulous upper jaw with a smooth surface. Therefore, the purpose of this study was to present an unconventional method of scanning such a challenging site, using artificial landmarks. **Material and methods:** : Before the actual scanning protocol, the palate of the patient was thoroughly dried. The next step consisted of injecting flowable composite and applying tissue adhesive in 8 areas of the hard palate, in a rectangular shape. After positioning the landmarks, the scanning protocol began, using a Dental Wings series 7 intraoral scanner. The procedure ended by removing the landmarks both from the palate by using either a probe or pliers and the in-office software, by simply deleting the landmarks. **Results:** Because of this procedure, we were able to obtain an accurate digital impression, without any noteworthy errors, reaching clinically acceptable results. **Conclusions:** Even though this method has reached clinically acceptable results, further studies still need to be done as this technology is still in its early years.

Keywords: edentulous, digital, artificial, landmark

INDEX OF AUTHORS

INDEX OF AUTHORS

INDEX OF AUTHORS

INDEX OF AUTHORS

INDEX OF AUTHORS

INDEX OF AUTHORS

INDEX OF AUTHORS