



BOOK of ABSTRACTS

No. 2/2019

**George Emil Palade University of Medicine, Pharmacy,
Science, and Technology of Targu Mures
University Days
December 9 - 14, 2019, Targu Mures**

**Scientific Session of University Academic Staff
The 12th Conference of PhD. Students and Young Doctors**



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**Scientific Session of University Academic Staff
Medicine and Pharmacy**

Scientific Session of University Academic Staff

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ANESTHESIOLOGY AND INTENSIVE CARE MEDICINE

ELECTROCARDIOGRAPHIC MODIFICATIONS IN AN ANIMAL EXPERIMENTAL MODEL OF LOCAL ANESTHETIC SYSTEMIC TOXICITY

Lazăr Alexandra¹, Perian M², Cordoş B³

¹Department of Anesthesiology and Intensive Care Medicine (II) and Emergency Medicine, UMFST Tîrgu Mureş

²Department of Physiology, UMFST Tîrgu Mureş

³Animal experimental department, UMFST Tîrgu Mureş

Background: Local anesthetic systemic toxicity (LAST) determines a severe cardiac toxicity, characterized by malignant arrhythmias which can lead to cardio circulatory shock, resistant to resuscitation maneuvers. Lipid solutions are proposed as rescue substances when LAST occurs. **Material and methods:** This is a prospective, experimental, interventional study. The subjects were Wistar rats, weighing between 250-350 g. They were divided in 4 groups, each group formed by 8 subjects. The groups were as follows: control group, lipid group, local anesthetic group, lipid+ local anesthetic group. All the subjects were anesthetized with Sevoflurane during the whole procedure. Their cardiac activity was monitored continuously until the heart was extracted and placed in special solutions for further analysis. The lipid quantity was administered as the American Society of Regional Anesthesia recommends in their LAST rescue guidelines. The local anesthetic we used is Ropivacaine and it was administered 0.1 ml every 3 minutes, 4 times maximum, or until the subject was in cardiac or respiratory arrest. The ECG tracings were recorded and analyzed further. **Results:** The Local anesthetic induces severe modifications on the ECG. Respiratory arrest, in the Ropivacaine group occurs mostly after the second administration and it is followed by cardiac arrest. The lipid seems to have a protective role in LAST, respiratory arrest being present after the third dose of local anesthetic or not even occurring during the experimental period, with cardiac activity present, although with alterations on the ECG tracing. **Conclusions:** Local anesthetic intravascularly administered produces a wide array of atrio-ventricular and intraventricular conduction abnormalities, which potentially lead to cardiac arrest. Lipid emulsion has a benefic effect when administered before Ropivacaine, and it could be recommended for routine pre regional procedures administration. **Acknowledgement** This work was supported by the University of Medicine, Pharmacy, Science and Technology of Târgu Mureş Research Grant number 615/9/17.01.2019

Keywords: local anesthetic, lipid, ECG alteration

BIOCHEMISTRY

PATHOLOGICAL LABORATORY FINDINGS IN DIABETIC KETOACIDOTIC PATIENTS

Nemes-Nagy Enikő¹, Tilinca Raluca Maria², Nánia Csilla², Tilinca Mariana Cornelia³

¹Department of Biochemistry, UMFST Tîrgu Mureş

²student, UMFST Tîrgu Mureş

³Department of Cell Biology, UMFST Tîrgu Mureş

Background: Diabetic ketoacidosis is a severe, often life-threatening acute complication of diabetes mellitus due to insulin deficiency. Several laboratory parameters are pathological in this state, being correlated with the severity of this condition. The aim of the study was to evaluate biochemical (serum and urine) and hematological parameters in diabetic patients suffering from ketoacidosis, considering also their comorbidities, anthropometric and demographic data. **Material and methods:** The retrospective study was conducted between 02.01-15.11.2018, at the Department of Diabetology, Nutrition and Metabolic Diseases of the Emergency County Hospital in Tîrgu Mureş. Biochemical tests (including minerals) were determined on the Cobas 6000 analyzer of the hospital, and the blood-gas analyzer of the UPU Department was used for the parameters of acid-base balance. **Results:** Type 2 diabetic patients represented 47% of the study group. The average age of the patients (17 males, 15 females) was 51 years +/- 15 (SD). Obesity was present in 19% of the patients, we found negative correlation between body mass index and serum triglyceride levels. Almost one third of the patients were recently diagnosed as diabetics due to inaugural ketoacidosis. More than half of the subjects presented hyperglycaemia exceeding 400 mg/dl and blood pH under 7.21. Hyponatremia was the most frequent mineral imbalance (63%), followed by pathological potassium values (31%). **Conclusions:** Early diagnosis of diabetes mellitus based on laboratory tests and symptoms could reduce the incidence of severe inaugural ketoacidosis. Complex management of the known diabetic subjects, mainly those on insulin treatment, could prevent such imbalances and the acute danger can be avoided by proper monitoring of ketoacidotic patients based on dynamic laboratory tests.

Keywords: diabetes mellitus, ketoacidosis, biochemical parameters, acid-base balance, minerals

DYNAMICS OF PREANALYTICAL LABORATORY ERRORS BETWEEN 2015-2018 IN A PRIVATE MEDICAL LABORATORY IN TÎRGU MUREŞ

Nemes-Nagy Enikő¹

¹Department of Biochemistry, UMFST Tîrgu Mureş

Background: The majority of laboratory errors occur in the preanalytical phase and these can have an important negative impact on the results of the laboratory tests. The aim of the study was to evaluate the dynamics of the type and frequency of preanalytical errors in a private medical laboratory in Tîrgu Mureş. **Material and methods:** The study was conducted between January 2015 - December 2018 in Tîrgu Mureş, using the DPMO (defects per million opportunities) results of a laboratory in an ambulant patients' medical unit to evaluate the sigma values. **Results:** A total number of 29640 samples were taken in the laboratory during the period of the study, 103 preanalytical errors were recorded (0.35%). The most frequent type was the delayed sample, this represented almost half of the total errors, the second was the improper container (18%). The DMPO results showed improvement during these years, the sigma level being between 4-5 during the first two studied years ("good" level) and it was improved to "excellent" level (sigma being between 5-6) during 2017-2018, and the DPMO results showed significant improvement ($p < 0.0001$) comparing 2015 with the next few years. **Conclusions:** Error rates' monitoring is an important aspect of the quality control management system. Minimalizing the errors in the preanalytical phase, which we could observe in the studied unit, is critical for the improvement of health care services in medical laboratories.

Keywords: preanalytical errors, DPMO, sigma, samples, quality control

CARDIOLOGY

HEART FAILURE WITH PRESERVED EJECTION FRACTION - A CASE PRESENTATION AND REVIEW OF EVIDENCE

Preg Z¹, Pál Tünde², Tătar Cristina Maria¹, Preg Piroška³, Germán Salló Márta¹

¹Department of Internal Medicine III and Family Medicine, UMFST Tîrgu Mureş

², UMFST Tîrgu Mureş

³, Procardia Medical Society

Background: Heart failure with preserved ejection fraction (HFpEF) is a frequent health problem for which awareness is limited. Patients have bad prognosis and a low quality of life. Evidence based treatments are lacking for this common condition. **Material and methods:** We present the case of a 81 year old man presenting with dyspnea, leg edema, hepatomegaly, high blood pressure. **Results:** The diagnostic workup evidenced heart failure with preserved ejection fraction based on clinical symptoms and signs, echocardiography, high NtproBNP values. Diagnostic scores H2FPEF (81,3%), and ESC HFA-PEF scores (6 points) support our diagnosis. As comorbidities obesity grade 2, diabetes mellitus, chronic kidney disease, chronic obstructive pulmonary disease, mild cognitive impairment were present. The review of evidence based interventions for the treatment of HfpEF showed that we have only limited treatment options for treatment of comorbidities, and symptomatic treatment for relief of congestive symptoms. **Conclusions:** There are promising emerging treatment options with ongoing clinical studies which could ensure further treatment options for this category of patients.

Keywords: Heart failure, preserved ejection fraction, treatment

CARDIOVASCULAR SURGERY

TISSUE ENGINEERED HEART VALVE: OUR EXPERIMENTAL PROGRESS

Harpa M¹, Suciu H¹, Al-Hussein H², Movileanu Ionela², Sircuta Carmen¹, Brânzaniuc Klara², Simionescu D²

¹Department of Surgery IV, UMFST Tîrgu Mureş

²Department of Anatomy, UMFST Tîrgu Mureş

Background: To obtain a viable biological heart valve, combining scaffolds, cells and stimuli. **Material and methods:** Acellular ovine pulmonary roots (n=3) and acellular ovine pulmonary roots reseeded with endothelial cells on the surface and interstitial cells in the matrix (n=3) were manufactured in TERMLab UMFST Tg. Mures, using standardized protocols. In UMFST Tg. Mures Experimental Facility, through minimal left thoracotomy, general anesthesia and mechanical ventilation, we instituted partial Cardio-Pulmonary Bypass. On beating heart, we implanted these valves on adult sheep, in pulmonary position. **Results:** Animals had a rapid recovery under specific therapy. Epicardic, transesophageal and transthoracic echocardiography confirmed a good hemodynamic valve performance intra- and postoperatively. Macro- and microscopic analyses will be performed after 6 months in vivo functionality. **Conclusions:** Our bioengineered heart valve demonstrated a good in vivo hemodynamic behavior. Further histologic analyses of explants are necessary to prove their applicability in the clinical activity. **Acknowledgment:** This work was supported by a grant from the Competitiveness Operational Programme 2014-2020, Tissue engineering technologies for cardiac valve regeneration, valve-regen, ID:P_37_673, Mysmis code:103431, contract 50/05.09.2016

Keywords: stem cells, sheep, heart valve, tissue engineering, regenerative medicine

DENTAL MEDICINE

FULL MOUTH REHABILITATION OF A 16 YEARS OLD BOY UNDER GENERAL ANESTHESIA

Cepuc V¹, Stoica Oana¹, Liubin Mihaela², Fodor Raluca³

¹Department of Pediatric Dentistry and Orthodontics, UMFST Tîrgu Mureş

²student, UMFST Tîrgu Mureş

³Department of Anesthesiology and Intensive Care Medicine (II) and Emergency Medicine, UMFST Tîrgu Mureş

Background: Complex oral rehabilitation requires time and multiple visits to dental clinics. Some of the patients may not be treated conventionally therefore other methods of sedation and anesthesia may be adopted. General anesthesia balanced with nasotracheal intubation using volatile agents like Sevoflurane offers comfort and long intervention time. **Material and methods:** The paper presents a particular clinical case, regarding a 16-year-old teenager with severe and complex oral pathology, an increased degree of anxiety and a lack of any other specialist treatment in her dental history. Clinical examinations and paraclinical investigations led to a modern treatment plan, accepted by the patient. **Results:** 2 general anesthesia sessions, one for each arch, and the patient had a complete oral health care and oral rehabilitation, until the moment of final bone development. Odontal, endodontic, surgical and prosthodontic treatments have been performed. **Conclusions:** General anesthesia in dental medicine is developing. Patients with associated health problems or the inability to be treated in the dental chair, can now receive a complete oral health rehabilitation in 2-3 sessions, even if they are routine dental treatments of all the teeth.

Keywords: oral rehabilitation, teens, general anesthesia, modern dentistry

RADIOGRAFIC EVALUATION OF ASSOCIATED SKELETAL CHANGES IN NON-SYNDROMIC HYPODONTIA

Mártha Krisztina¹, Pop Silvia Izabella¹, Kerekes-Máthé Bernadette²

¹Department of Pediatric Dentistry and Orthodontics, UMFST Tîrgu Mureş

²Department of Morphology of Teeth and Dental Arches, UMFST Tîrgu Mureş

Background: Early diagnosis of hypodontia and of the associated skeletal malocclusions is crucial for successful and stable final rehabilitation. Our objective was to compare the cephalometric findings of patients with hypodontia of 1-4 teeth with the measurement results of the control group without teeth agenesis. **Material and methods:** We evaluated the lateral X-ray of 41 patients with 1-4 teeth agenesis selected from patients referred for orthodontic treatment to the Orthodontic Department of University of Medicine and Pharmacy from Târgu Mureş, within a two years period. The results were compared with the values of the age and sex matched control group. **Results:** Bilateral upper incisor and lower bicuspid was missing in most of the hypodontia cases. When looking at the NSGn angle predicting the growth direction of the mandible, statistically significant differences were found between the male ($p = 0.012$), the front teeth agenesis ($p = 0.010$), the hypodontia group ($p = 0.024$) and the control group. Regarding the ANB angle, which shows the sagittal position of the maxilla to the mandible, statistically significant differences were found between the subgroups (women, men, anterior or posterior hypodontia) and the control group. **Conclusions:** Larger number of skeletal deep bite tendency and skeletal class 3 was observed in hypodontia group.

Keywords: hypodontia, cephalometry, skeletal malocclusion

STUDY OF THE STABILITY OF ORTHODONTIC TEMPORARY ANCHORAGE DEVICES

Mártha Krisztina¹, Bud E¹, Pop Silvia Izabella¹

¹Department of Pediatric Dentistry and Orthodontics, UMFST Tîrgu Mureş

Background: The orthodontics' top problems are the anchorage and the shifting effect of unwanted forces, so anchorage should be carefully designed. One of the most stable cortical anchorages is expected by the use of temporary anchorage devices. The

main objective of this study was to examine in different ways the stability of these temporary anchorage devices. **Material and methods:** We based the study on a dental clinic's database that contained patient files from 2002 to 2014 and we randomly selected 60 patients from that directory (14 males and 46 females, mean age 29) who received orthodontic miniscrews. In this retrospective study, we counted 121 pieces (40 palatal, 45 upper buccal, 36 lower buccal) of self-drilling miniscrews. These micro-implants were examined in multiple ways using several factors: (1) Implant related factors: insertion method, the type, diameter and length of the miniscrew, loading force and time; (2) Patient-related factors: gender, age, oral hygiene, orthodontic diagnosis, placement sites, and bone density **Results:** This study showed that from 121 pieces of micro-implants that were immediately loaded with 50g, 10.74% failed, 9.09% slacken and 1.65% fractured. Those that were slackened, 72.72% were palatal and 27.27% upper buccal miniscrews. **Conclusions:** The failure rate was 10.74% due to patients' bad oral hygiene, the displacement direction of the teeth, the overloading of anchorage and the low density of the bone and possibly the osseointegration of the micro-implants. The overall success rate of 89.26% showed that the miniscrews can be used as orthodontic anchorage consistently in routine orthodontic practice. To reduce the failure rate, clinicians should motivate the patients for better oral hygiene.

Keywords: Orthodontics, Stability, Temporary anchorage device

THE OCCURRENCE OF BISPHOSPHONATE-RELATED OSTEONECROSIS OF THE JAW (BRONJ) IN THE MAXILLOFACIAL SURGERY CLINIC 2007-2018

Golu MV¹, Paşcanu Ionela², Ormenişan Alina¹, Togănel Cornelia³, Petrovan Cecilia¹

¹Department of Oral and Maxillofacial Surgery, UMFST Tîrgu Mureş

²Department of Endocrinology, UMFST Tîrgu Mureş

³Department of Oncology, UMFST Tîrgu Mureş

Background: The therapeutic effects of bisphosphonates (BPs) on bone resorption have revolutionized the treatment of patients with bone damage in diseases such as osteoporosis, Paget' disease or in the prevention of skeletal manifestations in oncological patients. The side effects of bisphosphonate treatment have long been studied, but overall, these drugs are well tolerated and only the occurrence of osteonecrosis of the jaw has reduced the prescribers' enthusiasm. **Material and methods:** A retrospective study on patients diagnosed with osteonecrosis of the jaw in the Maxillofacial Surgery Clinic, which, according to the definition, had a denuded bone area in the maxillofacial region older than 8 weeks, while under current or previous treatment with a bisphosphonate, and with no history irradiation in the maxillofacial region. They were all treated at the Department of Oral and Maxillofacial Surgery Tîrgu Mureş between 2007 and 2018 **Results:** The results demonstrated an increase in the frequency of osteonecrosis of the jaw lately, both in chronic patients with oral bisphosphonates and in patients treated with new classes of bisphosphonates administered parenterally and with increased potency. Complications have also been reported, pathological bone fractures or local infection. **Conclusions:** A multidisciplinary approach can reduce the side-effects, before initiating bisphosphonate therapy. Dental status should be checked and periodic controls should be performed to identify incipient clinical stages of osteonecrosis. Dental practitioners and patients should be aware of the negative effects on the jaws after performing dental extractions. Although patient symptoms are improved through treatment, curing osteonecrosis of the jaw is not possible at this moment in time.

Keywords: Osteonecrosis, Bisphosphonate, Extraction

ACCURACY OF VIRTUAL CASTS OBTAINED THROUGH LABORATORY SCANNING.

Bors Andreea¹, Székely Melinda¹, Molnar-Varlam Cristina¹

¹Department of Morphology of Teeth and Dental Arches, UMFST Tîrgu Mureş

Background: Accurate models are a necessity for the fabrication of precisely fitting indirect restorations. The purpose of this in vitro study was to evaluate two methods for building accurate virtual models used for interactive computer-aided design and computer-aided manufacturing (CAD-CAM) procedures. **Material and methods:** Ten master models (nm=10) were manufactured from type IV gypsum and digitized with a noncontact laboratory industrial scanner (Identica T500) to obtain 10 virtual master models (nvm=10). Impressions of the master models were made using polyether material. The impressions (ni=10) were scanned using impression scanning function of the laboratory scanner. A second group of virtual models (nvi=10) was obtained. To compare each virtual master model group a CAD interactive software, Exocad professional, was applied. The Kruskal-Wallis test

was subsequently used to determine the overall difference between groups, with the Mann-Whitney U test used for pairwise comparisons. **Results:** The outcome revealed a significant difference among the 2 groups ($p < 0.01$) in terms of accuracy. With regard to total deviation, for all axes, the impression scanning virtual transfer technique (nim) generated the greatest difference, 0.078 mm (± 0.022), compared with the scanned master model group (nvm). **Conclusions:** The impression scanning method did not improve the precision of CAD-CAM obtained virtual casts.

Keywords: Technology of Dental Prosthesis, Dental Materials, virtual cast, laboratory scanning

THE ARCHES ROLE IN ORTHODONTIC BIOMECHANICS : AVANTAGES AND LIMITS

Pop Silvia¹, Pacurar Mariana²

¹Department of Pediatric Dentistry and Orthodontics, UMFST Tîrgu Mureş

²Department of Pediatric Orthopedics and Surgery, UMFST Tîrgu Mureş

Background: Surface topography of the orthodontic arches represents an essential property, having the ability to influence the mechanical characteristics, aesthetic appearance, corrosion and their biocompatibility. The surface structure depends on various factors, including: alloy used in manufacturing, complex manufacturing process and surface finishing treatment. The purpose of this study is to evaluate surface topography of the different types of arches to determine corrosion signs which reduce intraorally resistance. **Material and methods:** We have evaluated a total of 48 arches of different types, sizes and sections (12 Ni-Ti, 12 Ni-Ti physiognomical, 12 b-Ti and 12 SS), under an electronic microscope, for detecting some surface defects. The same arches were evaluated after removable from the oral cavity. (1 and 2 months). Other 24 arches were immersed in Cola and fluoride solution and were evaluated under an electronic microscope. Experimental studies included two types of mechanical tests (tensile and bending) performed by 48 arches, using Universal Bending Machine Instron Bluehill 2. **Results:** The correlation of changes produced by dipping the arches in different solutions, as well as those used intraorally, both from mechanical properties and surface characteristics, can provide precious information related to the corrosion mechanism. The damage of mechanical properties for SS arches is bigger than for NiTi arches. **Conclusions:** Mechanical and surface properties for intraoral arches are changing due to orthodontic forces and chemical liquids. - Dipping the arches in different solutions (fluoride and Cola), can provide increasing activation and deactivation forces, due to the affecting of surface changing.

Keywords: Ni-Ti, treatment, arches, surface, orthodontics

EVALUATION OF SALIVA SECRETION IN A STUDY REGARDING DENTAL EROSION

Székely Melinda¹, Borş Andreea¹, Molnar-Varlam Cristina¹, Margaritis V², Fazakas Zita³

¹Department of Morphology of Teeth and Dental Arches, UMFST Tîrgu Mureş

²School of Health Sciences, Walden University, Minneapolis, USA

³Department of Biochemistry, UMFST Tîrgu Mureş

Background: Reduced salivary flow rate is a risk factor of dental erosion. The present study was aimed to assess the saliva secretion of young adults living in Targu Mures, Romania, as part of a survey for diagnosis and secondary prevention of erosive tooth wear. **Material and methods:** This study was conducted in 2017 and the subjects were 117 dental students (79 female and 38 male) of the George Emil Palade University of Medicine, Pharmacy, Science and Technology (nominated by that time University of Medicine and Pharmacy) of Targu Mures, Romania. Ethical approval of the study and also informed positive consent of the participants were obtained. Unstimulated and also stimulated whole saliva were collected from the subjects, for 5 minutes each via passive droll, and salivary flow rates were measured. **Results:** Reduced salivary flow rates of 0.1-0.25 ml/min were found in 17% of the subjects and 2.5% of them presented hyposalivation of < 0.1 ml/min, respectively. Lower saliva secretion were observed in significantly more females than males. **Conclusions:** The results revealed that females are more exposed to dental erosion due to lower saliva secretion in the studied population.

Keywords: Dental Medicine, Dental Medicine, saliva secretion, salivary flow rate, dental erosion

APPLICATION OF DIGITAL IMAGE CORRELATION IN THE STUDY OF DENTAL RESTORATIVE MATERIALS

Kerekes-Máthé Bernadette¹, Mester-Nagy L², Makkai Zs², Dudás Cs¹

¹Department of Morphology of Teeth and Dental Arches, UMFST Tîrgu Mureş

²Postgraduate student, UMFST Tîrgu Mureş

Background: Digital image correlation makes possible the measurement of full-field shrinkage and tensile profile/strain maps in case of different dental materials. The method is useful in case of resin-based composites used as restorative materials, materials for implant-supported prosthesis and dental ceramics. In case of resin-based composites shrinkage appears during polymerization. Our aim was to test the applicability of this method by determining the shrinkage profile of resin-based composites. **Material and methods:** Two types of bulk-fill and two types of conventional composites were tested. Standardized cavities were prepared in sectioned molar teeth. After placing the composite into the cavity, the surface was sprayed with white paint followed by the dispersion of fine carbon particles in order to obtain high contrast. Images were taken before and after light-curing the composite. Images were processed by a digital image correlation software. **Results:** The highest particle movement was detected in the center of the upper third of the specimens. Tensile strain was displaced near the cavity walls. Micro-hybrid composite showed the highest shrinkage values and bulk-fill composites the lowest ones. **Conclusions:** This method is useful in determining risks for linear cuspal deflection and marginal micro fractures. Vertical and horizontal distortion and tensile strain displacement makes possible to obtain the full-field strain maps. We intend to continue our research by testing other types of composites with different adhesion techniques as well as determining j-integral values of dental ceramics.

Keywords: Dental materials, Preclinical study, image correlation, dental composite, shrinkage

EVALUATIONS OF BRACKETS EFFECTS ON ENAMEL ADHESION AND COLORATION

El-Saafin M¹, Vartolomei C¹, Suciu V¹

¹Department of Pediatric Dentistry and Orthodontics, UMFST Tîrgu Mureş

Background: There is an obvious correlation between SBS and the type of adhesive used, and the ARI assessment represent an important step in analyzing the bonding correctness and the efficacy of bonding materials. Adhesive materials used in fixed orthodontics should have an increased coefficient of adhesion to prevent brackets from detaching from the dental surfaces but at the same time to be sufficiently elastic so that the ARI index (amount of residual material on the enamel surface after debracketing) should be small enough. **Material and methods:** We analyzed the amount of adhesive remaining on the surface of the dental enamel, which should be removed without producing fractures of the enamel prisms with appropriate, good quality instruments on 72 teeth after debonding. After the finishing stage and we evaluated the aesthetic aspect and the enamel coloring by using a colorimeter scale. (the chromatic parameters in the green-red axis and the yellow-blue axis) **Results:** The same adhesive systems were used, and the colorimetric values were evaluated according to the mean values from the presumption tables. The color variations followed Brightness and Chromatics, using the ANOVA test, and the dental enamel suffered color changes during the fixed orthodontic treatment, reversible changes. After the finishing stage and the support of the remineralization phenomenon, fade so that the aesthetic aspect and the enamel coloring are in line with the patients' wishes. **Conclusions:** The use of an 'orthodontic package' (material and brackets from the same company), along with rigorously respecting operating times in applying and removing the brackets, are some practical tips to help clinicians, recommendations that will obviously contribute to the increase in quality of fixed orthodontic treatment. If the color is not perfect, different bleaching techniques can be applied, with hydrogen peroxide and custom mouth guard

Keywords: ARI, enamel, brackets, orthodontics, bonding

CLINICAL DECISION SCENARIOS FOR DENTAL LUTING CEMENTS

Molnar-Varlam Cristina¹, Székely Melinda¹, Borş Andreea¹, Moldovan Iunia², Sîrbu T²

¹Department of Morphology of Teeth and Dental Arches, UMFST Tîrgu Mureş

²Student Dental Medicine, UMFST Tîrgu Mureş

Background: The failure rate in prosthetic cimentation can be drastically lowered by choosing the correct luting cement, according to the clinical situation. This study starts from the hiphotesis that luting cements are not qualitatively influenced by any factors. This factors may include: provisional luting cements or eugenol-containing cements after the standardized cleaning procedures were respected, temperature, humidity and the thickness of the cement layer. **Material and methods:** After 20 non-carious teeth were polished, acrylic provisionals crowns were fixed, in vitro, with a provisional eugenol-containing luting cement. After 7 days, in which the teeth were conserved in 37°C water, the provisional luting cement was removed. The next step was fixing metal crowns with 4 different luting cements: zinc-phosphate cement, resin cements, glass ionomere and hybrid ionomere. Their fixing strength was tested in vitro, depending on the cement, different temperatures, film thickness and rheological properties, viscosity, mixing time, the presence of water (wet medium), limited working time. **Results:** The humidity, the substrate on which the cement is applied, temperature, may determine the failure of the luting procedure. The surface of the metal crowns, the thickness of the luting cement layer and temperature may negatively influece the quality of the luting cement. Cooling increased fluidity of almost all luting cements. **Conclusions:** Chosing a luting cement, is usually based on the experience and the preference of the doctor and less on aspects regarding the damage brought to the luting properties or the specific clinical uses of the cements. Luting cements differed considerably with respect to mechanical properties.

Keywords: Dental Medicine, Dental Medicine, luting- cement, viscosity, temperature

ENT (OTORHINOLARYNGOLOGY)

COCHLEAR IMPLANT-THE BEST SOLUTION FOR THE HEARINGLOSS TREATMENT

Neagoş Adriana ¹

¹Department of Otorhinolaryngology, UMFST Tîrgu Mureş

Background: Sensorineural hearingloss is a inner Year disfunction or auditory or Nerv risk factor. The family history of hereditary childhood ,perinatal infection ,evidence of craniofacial abnormalities,birth weight ,ototoxic medications ,postnatal anoxia are important faktors that can produce hearingloss. There are many options for the hearingloss treatment: from hearing device, to middle ear implants and brain implants. cochlear implant is an auditory processing wich transform an acustic stimulus into a electric impuls. The electrod contacts emulate the tonotopic organisation of cochlea

Material and methods: We have evaluate 5 years ENT Clinic Tg. Mures from 2014-2019 , experience in cochlear implants surgery. It is a prospective observational study, using a 28 questions form. We have compared the results in CI surgery, and how this surgical procedure influence the quality of life, in patients with several and profound hearingloss. We have used a form witch includes questions regarding noise orientation, spech perception in noise, communication, hapiness, family integration.

Results: 52.63% of the patients surveyed were implanted bilaterally, the remaining patients undergoing unilateral cochlear implant surgery. In this latter case, the following percentages were recorded: the right ear (26.32%) and the left ear respectively (21.05%).

Conclusions: According to statistics, cochlear implantation determines a more faithful perception of music in the bilateral implant. The degree of adaptability and integration of the patient in the social environment, the development of various activities and the movement in new places as a result of the maximal use of the cochlear implant is an additional criterion for choosing this method in view of treating hearing loss.

Keywords: Otorhinolaryngology, Otorhinolaryngology, cochlear implant, hearingloss,, children, electrod

BAHA SISTEM FOR THE HEARINGLOSS TREATMENT

Neagoş Adriana ¹

¹Department of Otorhinolaryngology, UMFST Tîrgu Mureş

Background: Baha has proven performance and advantages for patients with aural atresia or chronic ear drainage. There are two type of prosthesis: transcutaneouse and percutaneoouse with good bone integration Baha surgery include different candidate selection, and need a specifical anesthesia related to reduced the intra-operative and postoperative complications

Material and methods: Ours was a observational study where case records of 10 patients who underwent Baha surgery in the Department of E.N.T during the time period from 2014 to June 2019 were reviewed. Here, the candidates were advised Baha either for congenital external ear deformity or single sided deafness, and chronical Otitis media with otorea. Out of 10 patients, who underwent Baha implantation, 8 underwent single staged Baha implant We have evaluate the skin thickness, before implantation, and the correlation between BAHA dimension and risk of skin complications.

Results: Transcutaneous implant is well tolerated by patients. In the cases evaluated postoperatively there is a significant improvement of the hearing on the bone conduction. In complications there are skin infection around the site of implant , skin overgrowth due to more thickness of scalp, and in many cases it is necessary to have a revision surgery to replace the abutment

Conclusions: It is a prosthesis system with very good results for cases before cochlear implant surgery. Patient selection is essential for audiological results

Keywords: ENT, ENT, BAHA, hearingloss, mixed hearingloss, skin, bone c

ENDOCRINOLOGY

SINGLE VERTEBRAL FRACTURE, MULTIPLE ETIOLOGIES: REPORT OF A CHALLENGING CASE

Cătană Ramona Teodora¹, Nechifor-Boilă Adela¹

¹Department of Histology, UMFST Tîrgu Mureş

Background: Despite a variety of etiologies, including trauma or tumor infiltration, vertebral compression fractures (VCF) are the hallmark of osteoporosis. Clinical consequences of these fragility fractures include short and long-term morbidity, decreased health-related quality of life and increased mortality. **Material and methods:** We present the case of a 66 years-old woman, admitted to the Endocrinology Department for a VCF at T12 level, occurred after a minimal effort, and low bone mineral density (DXA T score for L1-L4= -3.3 DS), to initiate the anti-osteoporotic therapy. The normostenic (BMI-19,5 kg/m²) patient, complaining of an excruciating back pain that limited any movement and did not improve in time, had no background treatment and menopause age was 42 years. **Results:** Laboratory tests indicated an euthyroid state, low level of 25OHvitaminD, and surprisingly, a height level of cortisol. Further investigations (overnight dexamethasone suppression test, midnight salivary cortisol, ACTH level) raised the suspicion of an ACTH-independent Cushing's syndrome. The abdominal CT examination identified a 23 mm nodular lesion with negative densities in the left adrenal gland. An increased liver size with presence of hypodense multiple lesions (native and iv postcontrast) having a confluent aspect, raised the suspicion of secondary determinations. Ascitic fluid, basal pulmonary condensation and pleural liquid in small quantity were also observed. The patient refused any further investigations or treatment and died 2 months later. **Conclusions:** This case demonstrates the importance of considering and investigating all possible etiologies when dealing with fragility fractures cases. In our case the common clinical aspects of a Cushing' syndrome were dissimulated due to the underlying consumptive syndrome.

Keywords: osteoporosis, Cushing, liver lesions, vertebral fragility fractures

HEMATOLOGY

PROGNOSTIC STRATIFICATION AND SURVIVAL IN CHRONIC MYELOID LEUKEMIA, CHRONIC PHASE

Demian Smaranda¹, Candea Marcela¹, Macarie I¹, Petra Dorina², Irimia Elena¹, Matei Claudia Sanziana¹, Demian RF³

¹Department of Internal Medicine II, UMFST Tîrgu Mureş

²Department of Internal Medicine III and Family Medicine, UMFST Tîrgu Mureş

³Department of Oncology, UMFST Tîrgu Mureş

Background: Prognostic evaluation is a critical key to the proper treatment strategy of chronic myeloid leukemia in chronic phase (CML-CP) patients. There are well known prognostic scores, but their impact on the clinical practice, for smaller groups of patients, is not always identical with data emerging from international multicentric studies. **Material and methods:** Study group: 47 patients, median age 47 years, male to female ratio 1,6/1, newly diagnosed with CML-CP, treated and followed in Hematology Department, Ist Medical Clinic between 2009-2019. CML treatment for all patients were tyrosine kinase inhibitors, 69,7% just one therapeutic line. Inclusion period: January 2009-December 2017, follow-up period January 2009-October 2019 (130 months). Classical prognostic indices (Sokal, Hasford, EUTOS, ELTS) were reevaluated, using data at diagnosis, and standard survival curves (Overall survival OS, Progression-free survival PFS, Events-free survival EFS) were estimated using the Kaplan-Meyer method. **Results:** Prognostic stratification using Sokal, Hasford and ELTS score was: high-risk 40,48% - 29,79%-12,12%, intermediate-risk 40,42%-44,68%-42,42% and low-risk 19,15%-25,53%-45,45%. According to EUTOS prognostic evaluation, 25,53% of patients could be included in the high-risk group. The incidence of a high-risk prognostic group using Sokal and Hasford indices was 27,66%, both indices and 40,43% one of two. Survival at 5 and 10 years respectively was OS: 97,7%-92,8%, PFS: 94,3%-73,3%, EFS: 73,6%-62,3%. The impact of higher-risk prognosis evaluated using Sokal, Hasford, and ELTS indices were significant mainly for EFS- first-line therapy and partly for PFS. **Conclusions:** The primary clinical and laboratory data quantified and noted at the time of the positive diagnosis, in contrast to those recognized with potentially prognostic, had values close/similar to those published as a result of classical international studies. The conventional prognosis indicators, OS, EFS and PFS, and stratification of cases by risk groups have had values comparable to those reported in smaller studies, on more restricted groups of patients.

Keywords: chronic myeloid leukemia, prognostic risk, survival analysis

HYGIENE

COMPLIANCE TO LEGAL REQUIREMENTS AND EDUCATIONAL IMPACT OF DIETARY SUPPLEMENT ADS

Nădășan V¹, Pethő Adél², Ferencz L¹, Ábrám Z¹

¹Department of Hygiene, UMFST Tîrgu Mureș

²Department of Surgery, Municipal Clinical Hospital, Cluj-Napoca, Romania

Background: The urban lifestyle is frequently characterized by working overtime, high intake of processed foods, and stress. Some people attempt to control the unwanted effects of such a lifestyle by taking dietary supplements. The study aimed to assess the compliance with legal requirements and the educational impact of dietary supplement ads broadcast on the main Romanian TV channels. **Material and methods:** The research was designed as an observational, cross-sectional study. The top three Romanian TV channels were selected based on publicly available audience research data. The selected TV channels were monitored all day long, on Mondays, Wednesdays and Fridays, in January, February, March, April, and May 2019. Dietary supplement ads were recorded and saved as multimedia files. Formal and content analyses were performed based on a list of criteria retrieved from the Romanian and European legislation in the field. **Results:** The percentage of ads with easily readable, hardly readable, and missing written warning was 51.0%, 46.9%, and 2.1% respectively. The audio warning was loud and clear, hardly distinguishable, and missing in 65.3%, 4.1%, and 30.6% of the ads, respectively. More than a third (34.7%) of the ads included banned words such as "medical", "illness", "sick", "symptom", "remedy", "medicine", "treatment". The percentage of ads containing illegal video and/or audio representations suggesting medical professions, recommendations, certifications or endorsements was 18.4%. Moreover, 18.4% of the ads suggested a preventive effect, and 59.2% a curative effect, contrary to EU and Romanian dietary supplements sales and advertisement regulations. Finally, 22.4% of the ads suggested either explicitly or implicitly that dietary supplements may be used to cancel the effects of various unhealthy behaviors such as overeating, overconsumption of alcohol or pharmaceutical drugs. **Conclusions:** A significant number of dietary supplement ads did not comply with technical or content-related legal requirements and may encourage unhealthy behaviors.

Keywords: dietary supplements, health education, legal requirements

INFECTIOUS DISEASES

HEPATOCELLULAR CARCINOMA IN HIV-HBV COINFECTED PATIENT

Zaharia-Kézdi Erzsébet-Iringó¹, Chiriac Carmen Lucia¹, Pascarenco Ofelia², Incze Andrea¹, Andrejkovits AV¹

¹Department of Infectious Diseases, UMFST Tîrgu Mureş

²Gastroenterology, UMFST Tîrgu Mureş

Background: In the Combination Antiretroviral Treatment era, we observed a higher risk of long-term complications of viral hepatitis and cirrhosis in HIV infected patients. **Material and methods:** Case report. We present a 30-year-old patient, diagnosed with HIV-HBV coinfection in 1999. Since 2004, based on his clinical immunological findings, he has been staged in C3 category. He was married to a seronegative partner, and had a seronegative child. From the moment of diagnosis, he has been the beneficiary of multiple antiretroviral regimens (the last: Emtricitabine, Tenofovir, Raltegravir). The adherence to treatment at the beginning was good, but diminished in the last three years due to alcohol addiction. The compliance to periodic follow ups was also reduced. Last TCD4 cell count was 346 mm³ and viral load: 248 copies/ml. He was admitted to our clinic in July 2018. The onset of his complains was marked by meteorism, abdominal pain, asthenia, fatigability, from May 2018. Physical examination at admission revealed obesity, enlarged liver, with greater tenderness, splenomegaly, pulmonar rhonchi sounds. Modified laboratory investigations were: GPT: 78UI/L, GOT: 127U/L, total-bilirubin: 1,65mg/dl, Alfa fetoprotein: 18365,38ng/ml. Gastroenterological exam and abdominal ultrasonography described cirrhosis, multiple nodular lesions, minimal ascites. For the suspicion of hepatocellular carcinoma, we performed abdominal MRI scan which described: liver cirrhosis, multiple nodular lesions with malignant characteristics (multicentric hepatocellular carcinoma), left portal vein thrombosis, multiple intraabdominal lymph nodes, ascites. **Results:** Final diagnosis: hepatocellular carcinoma in cirrhotic HIV-HBV coinfecting patient. We recommended oncological evaluation for Nexavar treatment, but the outcome in 1 month was unfavorable, with death. **Conclusions:** HCC in HIV infected patients still has a poor outcome, it must be considered as an important emerging cause of death. Our patient with lack of compliance to treatment and follow ups, with multiple risk factors was diagnosed late, the outcome was fatal, and a child remained fatherless.

Keywords: Hepatocellular carcinoma, HIV, hepatitis B, cirrhosis

CARBAPENAMASE PRODUCING MULTIDRUG-RESISTANT PROVIDENCIA STUARTII INFECTIONS

Susanyi EJ¹, Gârbovan Cristina¹, Bodnar Nina-Ioana¹, Man A², Damian V¹, Zaharia-Kézdi Erzsébet-Iringó¹

¹Department of Infectious Diseases, UMFST Tîrgu Mureş

²Department of Clinical Laboratory, UMFST Tîrgu Mureş

Background: Providencia (P) species are Gram-negative bacteria with medical importance caused by marked resistance to numerous antibiotics (MDR), for example P. stuartii has an intrinsic resistance to colistin and tigecycline. The aim of this report is to present two cases with carbapenem resistant P. stuartii infections. **Material and methods:** Case I. A 46-years old female patient, suffering from high blood pressure (HBP), type 2 diabetes mellitus, morbid obesity, who recently underwent a surgical intervention complicated with wound infection. From the purulent drainage carbapenemase-producing (CPE) P. stuartii and P.aeruginosa strains were isolated. Case II. A 73- years old male patient, with multiple comorbidities: benign prostatic hyperplasia, high blood pressure, ischemic heart disease, recently treated for meningoencephalitis, with permanent urinary catheter, had a positive uroculture with: CPE-P.stuartii, MDR P.aeruginosa, Acinetobacter spp. **Results:** CPE -Providencia stuartii was isolated in both cases presented. In the first case it was identified from the pus and in the second case from the urine culture. The antibiotic susceptibility was tested through disk diffusion method and MIC VITEK according to the European Committee on Antimicrobial Susceptibility Testing (EUCAST). Interpretation of the isolated sample [Case I]: Resistant - Trimethoprim, Chloramphenicol, Tetracycline, Minocycline, Moxifloxacin, Levofloxacin, Meropenem, Ceftriaxone, Cefixime, Cefuroxime axetil, Cefuroxime, Piperacillin, Ticarclyline/ clavulanic acid, susceptible to Aztreonam, intermediate to Tigecycline, Cefepime. The germ isolated from urine culture was resistant to all tested antibiotics, including aztreonam.[Case II] **Conclusions:** Nosocomially acquired P. stuartii is

typically resistant to antibiotics. It is most frequently isolated from the urinary tract from catheterized patients. In our cases, we highlight the importance of difficulty to treat these patients because the bacterial strains are MDR and Aztreonam is not available. *P. stuartii* can be associated to *Pseudomonas* infection, like we observed.

Keywords: *Providencia stuartii*, CPE, MDR, treatment

IMMUNE RECONSTITUTION INFLAMMATORY SYNDROME IN HIV POSITIVE PATIENTS

Kristály Franciska–Margit¹, Georgescu Anca Meda¹, Zaharia-Kézdi Erzsébet-Iringó¹

¹Department of Infectious Diseases, UMFST Tîrgu Mureş

Background: HIV associated immune reconstitution inflammatory syndrome (IRIS) is an important complication of antiretroviral treatment (ART) initiation. IRIS is associated with a considerable mortality and morbidity, especially in profoundly immunosuppressed patients. Can manifest as a deterioration of a previously known disease -paradoxical IRIS- or as an undiagnosed disease - unmasked IRIS. Access to ARV treatment is improving worldwide, but because many patients still commence ART with low CD4 counts, IRIS remains a common complication. The diagnosis remains difficult in the absence of standardized clinical case definitions, confirmatory diagnostic tests. **Material and methods:** We retrospectively studied demographical and clinical-immunological data of patients diagnosed with IRIS at the 1st Infectious Diseases Clinic Tîrgu Mures between 01.01.2007-31.12.2017, reviewing medical charts. IRIS manifestations were grouped as major and minor. For the statistical analysis the GraphPad InStat 3 program was used. Categorical values were compared using Fishers exact test. **Results:** From the 161 new HIV infections in the studied period 15 documented IRIS cases (9,31 %) were found. 10 patients were male (66%) and 5 female. The average age in the studied group was 28 years. All patients were tested for HIV because of symptoms/ diseases defining AIDS. 11 had unmasked IRIS, 3 paradoxical IRIS and one patient had paradoxical + unmasked IRIS at the same time. A single case of death was found because of an unmasked IRIS with diffuse large B cell non-Hodgkin lymphoma. There was a difference statistically significant between the number of the LTCD4 cells below 50 cells/mm³, respectively below 100 cells/mm³ and the development of IRIS (p<0.05). **Conclusions:** The most frequent major manifestation of IRIS was cerebral toxoplasmosis, the most frequent minor manifestation was herpes zoster. The clinical manifestations were diverse, necessitating a high clinical suspicion for its occurrence.

Keywords: HIV, unmasked IRIS, paradoxical IRIS

MULTIDISCIPLINARY MANAGEMENT OF THE DEEPLY IMMUNOCOMPROMISED HIV POSITIVE PATIENT

Negrea Valentina¹, Rotaru Marta¹, Pascarenco Ofelia², Incze Andrea¹, Craciun C¹, Zaharia-Kézdi Erzsébet-Iringó¹

¹Department of Infectious Diseases, UMFST Tîrgu Mureş

²Department of Internal Medicine IV, UMFST Tîrgu Mureş

Background: The multidisciplinary team approach to HIV care is widely seen as the ideal management strategy, but putting it into practice can be challenging. **Material and methods:** A 44-year-old man, known with partial gastrectomy for penetrating ulcer, HIV infection (2014) without adherence to TARV and clinico-biological monitoring. He got into the hospital for prolonged fever, chills, weight loss, cough, dyspnoea. Laboratory investigations detect severe immunodepression with CD4 19 cells / mm³, viral load was 449 408 copies/ml, negative HLA, pancytopenia, candidiasis. It is investigated hematologically, ophthalmological, dermatological, imagistically. In the 19th day of hospitalization and treatment with Clindamycin and Sumetrolim developed hepatic cytolysis, jaundice, progressive anemia. All this are reason to complete the investigations with gastroenterology consultation, surgical, abdominal CT. It rises the suspicion of ulcerative colitis/Crohn's disease. Colonoscopy reveals the appearance of pseudomembranous colitis. Although digestive symptoms for Colitis with *Clostridium difficile* were not suggestive, it is required to determine the toxin A and B which was positive. The treatment of the patient was complex: treatment of pneumocystosis with favorable evolution but with hepatotoxicity, blood transfusions, treatment of colitis with Vancomycin, primary prophylaxis for toxoplasmosis and secondary for PCP. Firstly is recommended an antiretroviral treatment with Tenofovir with Emtricitabine and Tivicay, but the patient may have an eruptive syndrome which leads to stop the therapy. After is resumed with: Kivexa, Norvir and Prezista, without adverse reactions. **Results:** Final diagnosis: Acquired immune deficiency syndrome stage C3, pneumocystosis,

toxic hepatitis, pancytopenia, colitis with *Clostridium difficile*, biliary lithiasis, oral candidiasis. Following multidisciplinary consultations and treatment, the clinical and paraclinical evolution was favorable with the normalization of biological parameters.

Conclusions: It is important and there is a need for a multidisciplinary approach regarding the treatment of patients with profoundly immunocompromised HIV patients in order to make prompt decisions regarding the establishment of appropriate therapeutic behaviors.

Keywords: immunosuppression, HIV, multidisciplinary management

INFLUENZA IN PATIENTS OF EXTREME AGE - CLINICAL AND EVOLUTIVE ASPECTS

Bodnar Nina-Ioana¹, Chiriac Carmen Lucia¹, Gîrbovan Cristina¹, Zaharia-Kézdi Erzsébet-Iringó¹, Incze Andrea¹, Bodea-Alucăi Andreea¹, Georgescu Anca Meda¹

¹Department of Infectious Diseases, UMFST Tîrgu Mureş

Background: Influenza is one of the most common viral infections worldwide, with potentially poor outcome in persons of all ages. However, according to the World Health Organization, the age categories at risk for severe forms of influenza and therefore primarily targeted by vaccination strategies are patients aged below 59 months or over 65 years-old. **Objectives:** To analyze the clinical and evolutive features of influenza in patients of extreme age. **Material and methods:** We performed a retrospective analytical case-control study on two groups of patients admitted for influenza to the Infectious Diseases I Clinic, department of the County Clinical Hospital Mureş, between January 2017-May 2019 (3 influenza seasons). 26 patients either younger than 59 months or older than 65 years composed group A, while 74 persons belonging to other age categories formed group B. **Results:** The proportion of severe forms was 76.92% in group A and 45.94% in group B, resulting in a positive statistically significant association between extreme age and influenza severity - $p = 0.0125$, OR = 3.922. The main complication in both groups was pneumonia - 82% of all patients. The two groups, however, registered similar death-rates - 3.84% for group A and 4.05% for group B, possibly due to other associated risk factors, such as smoking and comorbidities. **Conclusions:** Influenza in patients of extreme age usually presents as a more severe illness. Death-rate by influenza, however, is influenced by other risk factors apart from age.

Keywords: influenza, extreme age, evolution

HIV POSITIVE PATIENT WITH NEUROLOGICAL MANIFESTATIONS – CASE PRESENTATION

Incze Andrea¹, Chiriac Carmen Lucia¹, Zaharia-Kezdi Erzsébet-Iringó¹, Andrejkovits AV¹

¹Department of Infectious Diseases, UMFST Tîrgu Mureş

Background: The etiological diagnosis of neurological disorders in HIV positive patients might be challenging. Brain computer tomography (CT) scan, brain magnetic resonance imaging (MRI), serological tests, nucleic acid detection tests, cerebrospinal fluid (CSF) analysis are needed to establish the diagnosis. **Material and methods:** We present the case of a 27-years-old female patient, who developed cerebellar ataxia, dysarthria with progressive onset. The patient's personal history revealed varicella, appendectomy, and a surgical intervention for right otitis media 4 years before. The patient was initially admitted to the neurology department, had a negative brain CT scan, thrombocytopenia (100000/mm³). Brain MRI was performed, showing cerebellar and pontine lesions. HIV test was positive. **Results:** HIV viral load was 67900 copies/ml, the number of T CD4+ lymphocytes was 31/mm³. Antigen HBs, total HBc antibodies and anti HBe antibodies were positive. Nucleic acid detection tests were performed from the CSF, JCV-DNA was detected. The patient was initially treated with Acyclovir, which was stopped after JC virus (JCV) produced progressive multifocal leucoencephalopathy (PML) was documented. Antiretroviral therapy with tenofovir, emtricitabine and dolutegravir was initiated, with favorable outcome. 2 months after the initiation of therapy the patient developed a worsening of her symptoms, in the context of an immune reconstitution inflammatory syndrome. Her HIV viral load was undetectable. A short course of corticotherapy was administered, with favorable results. A year after starting therapy the T CD4+ lymphocyte count was 507/mm³, the clinical manifestations improved significantly, HIV viral load remained undetectable. **Conclusions:** We underline the importance of HIV testing in young patients with neurological manifestations without an alternative diagnosis. Brain MRI and nucleic acid detection tests are necessary to further investigate the case. The prognosis depends on the etiology and adherence to

antiretroviral therapy.

Keywords: progressive multifocal leucoencephalopathy, JC virus, antiretroviral, brain MRI, nucleic acid detection

INTERNAL MEDICINE

NON-PULMONARY, NON-CARDIAC ACUTE RESPIRATORY FAILURE? – CASE REPORT

Szász Zsuzsánna¹, Székely-Vass Enikő², Horváth Gyopár², Magdás Annamária³

¹Department of Internal Medicine II, UMFST Tîrgu Mureş

²Department of Occupational Medicine, UMFST Tîrgu Mureş

³Department of Internal Medicine IV, UMFST Tîrgu Mureş

Background: Acute respiratory failure is considered to be the most common reason when emergency services are required. Usually, it has a fundamental background like pneumonia, chronic obstructive pulmonary disease, lung edema, cardiac failure, etc. Our case report unfolds a rare pathology described in adulthood (diaphragm hernia), underlining the importance of multidisciplinary collaboration, following the development of a long asymptomatic evolution, which often diagnosed in the later decades of life (due to its complications). This case elucidates the diagnostic and treatment issues related to a 62-year-old female patient with severe respiratory failure caused by the Morgagni hernia which was successfully resolved by open surgery. **Material and methods:** We present a case of 62-year-old female patient, smoker, known from the previous medical history of chronic obstructive pulmonary disease (COPD), chronic ischemic heart disease, hypertension, gastric ulcer, gastritis. **Results:** The patient rushed to the ER with acute respiratory failure, chest discomfort, meteorism, and constipation for 3 days, with ischemic ECG modification without increasing myocardial cytolysis indicators, chest X-ray showing a right lower pulmonary lobe consolidation. After admission to the internal medicine department, CT imaging is carried out describing a 37 mm right anterior diaphragmatic hernia, containing adipose tissue and the hepatic flexure of the colon with approximate dimensions of 50/100 mm. **Conclusions:** Like in our case, most of the hernias, especially Morgagni hernia, are diagnosed late because patients can be asymptomatic or present with vague gastrointestinal and respiratory symptoms and signs. Our patient was 62 years old when it was diagnosed. The case's evolution led to complications such as respiratory failure and sub-occlusion syndrome. Initially, we were facing differential diagnostic problems, knowing the subject existing cardiac and chronic respiratory tract pathologies from the previous medical history.

Keywords: respiratory failure, epigastric pain, thoracic discomfort, Morgagni hernia

NEONATOLOGY

FACTORS INFLUENCING EARLY PERINATAL MORTALITY IN EXTREMELY PRETERM INFANTS IN TWO EPOCH

Cucerea Manuela¹, Suci Laura¹, Simon Marta¹, Gall Zsuzsanna¹, Marian Raluca²

¹Department of Pediatrics IV, UMFST Tîrgu Mureş

²Department of Cell Biology, UMFST Tîrgu Mureş

Background: Survival of extremely preterm infants has improved over the last decades due to active resuscitation at birth, initiation of intensive care treatment soon after birth, development of new techniques of respiratory support. **Material and methods:** Early perinatal survival rate was prospectively analysed for infants born before 28 weeks of gestation admitted in an academic perinatal tertiary care center during 11 years from 2008 to 2018. The study period was divided into two epochs: 2008-2013 (137 infants) and 2014-2018 (164 infants). **Results:** Three hundred one infants were included in our study, overall birth weight was 834 (SD 196) grams. Overall survival rate improved significantly from 57.7% in Epoch I to 80.5% in Epoch II. Early survival at the end of the first week of life increased also from 73% in Epoch I to 92.1% in Epoch II. Perinatal factors associated with higher survival rates were: antenatal corticotherapy (OR 0.32, 95%CI 0.17 to 0.58), Apgar score at 5 minutes higher than 7 (OR 4.7, 95%CI 2.6 to 8.6), arterial cord blood pH higher than 7 (OR 3.58, 95% CI 1.77 to 7.21). Mortality rates were higher for those infants detected with IVH grade higher than III (OR 5.8, 95% CI 3.18 to 10.9). Successfully closure of the PDA during first week of life associated with higher survival rates overall (OR 0.19, 95% 0.076 to 0.492). **Conclusions:** Antenatal corticotherapy, active attitude on labor wards, early PDA successfully closure are factors influencing early perinatal survival among extremely preterm infants. Key words: extremely preterm infants, perinatal survival, perinatal mortality

Keywords: extremely preterm infants, perinatal survival, perinatal mortality

NEUROLOGY

THE ROLE OF DUPLEX ULTRASOUND EXAMINATION IN THE DIAGNOSIS OF CERVICAL ARTERY DISSECTIONS

Bajko Z¹, Maier Smaranda¹, Moțățăianu Anca¹, Bărcuțean Laura¹, Stoian Adina², Bălașa Rodica¹

¹Department of Neurology, UMFST Tîrgu Mureș

²Department of Pathophysiology, UMFST Tîrgu Mureș

Background: The dissection of the cervico-cerebral arteries is an important, non-atherosclerotic cause of stroke in young adults. The dissection compromise the integrity of the arterial wall structure and lead to formation of a hematoma between the layers of the arterial wall (mural hematoma). Duplex ultrasonography is a useful method for screening and follow-up the recanalization process. **Material and methods:** We included in the study 28 consecutive cases of dissection from the database of the Neurology Clinic I of the County Emergency Clinical Hospital Tîrgu Mureș. **Results:** Mean age of patients was 45.2 ± 11.4 years, male / female ratio 3: 1. In 17 cases the ultrasound examination showed direct signs of dissection, in 11 cases there were only indirect signs, and further investigations were needed to establish the diagnosis (MRI, Angio CT scan, DSA). The carotid system was affected in 60% of cases. Concomitant dissections of several cervical vessels accounted for 20% of the cases. Direct ultrasonographic signs suggestive of dissection were: hypoechogenic mural hematoma, irregular stenosis, hypo or isoechoic thickened arterial wall, distal occlusion, no atherosclerotic changes, intimal "flap", or dissection membrane and double lumen. The most commonly encountered indirect sign was the prestenotic flow. The change of the ultrasonographic aspect at the follow-up examinations (recanalization, early recurrence) was highly suggestive for dissection. **Conclusions:** Duplex ultrasonography is an essential method for the diagnosis of cervical vessel dissection being non-invasive and readily available. In many cases the diagnosis must be confirmed by complementary imaging methods. It is the most practical method for time tracking of hemodynamic changes, for tracking the recanalization process and detecting early and late recurrence

Keywords: cervical artery dissection, duplex ultrasound, carotid artery, vertebral artery

EXPRESSION OF MATRIX METALLOPROTEINASES IN PATIENTS WITH MULTIPLE SCLEROSIS TREATED WITH DISEASE MODIFYING THERAPIES

Maier Smaranda¹, Bajko Z¹, Moțățăianu Anca¹, Stoian Adina², Bălașa Rodica¹

¹Department of Neurology, UMFST Tîrgu Mureș

²Department of Pathophysiology, UMFST Tîrgu Mureș

Background: Matrix metalloproteinases (MMPs) are a large family of zinc-dependent proteolytic enzymes, known for their ability to degrade extracellular matrix components. In multiple sclerosis (MS), MMPs are expressed in the central nervous system (CNS) by various cell types, including vascular endothelial cells, neuron, reactive astrocytes and the microglia, and accumulated inflammatory cells. In the CNS, the high numbers of MMPs lead to the perpetuation of neuroinflammation, which contributes to myelin degradation and axonal damage. **Material and methods:** We performed a prospective study in which we included patients with relapsing remitting MS and healthy controls. We determined the serum levels of nine MMPs by a multiplex method at the beginning and end of the study. **Results:** At the end of the study we found a statistically significant decrease in the serum levels of 5 MMPs. Patients with disease duration ≤ 10 years had lower serum MMPs values both at the beginning and at the end of the study. The highest serum levels of MMPs were found in patients who had 2 and 3 recurrences in the year preceding the study. Serum values of MMPs during the study period decreased in patients who did not have any recurrence, and increased in those who had recurrences during the study. The increase of the EDSS score during the study period was associated with an increase in the serum values of the MMPs. The objective of the study was to evaluate whether disease modifying therapies (DMT) significantly influences the MMPs serum levels. **Conclusions:** DMT significantly influence the serum levels of MMPs which correlates with disease activity.

Keywords: Neurology, Neurology, multiple sclerosis, matrix metalloproteinases, dis

THERAPEUTIC PLASMA EXCHANGE IN NEUROLOGICAL DISORDERS BY USING SPECTRA OPTIA APHERESIS SYSTEM – A SHORT EXPERIENCE

Stoian Adina¹, Andone S², Moțățăianu Anca², Bajko Z², Maier Smaranda², Bărcuțean Laura², Bălașa Rodica²

¹Department of Pathophysiology, UMFST Tîrgu Mureș

²Department of Neurology, UMFST Tîrgu Mureș

Background: Therapeutical plasma exchange (TPE) is an extracorporeal procedure used as a first or second line therapy that reduces the amount of circulating autoantibodies, complement and citokines and is commonly used in neurological disorders where autoimmunity plays an important role. **Material and methods:** We had seven patients with neurological diseases admitted in the Department of Neurology, Mures County Emergency Clinical Hospital who had been treated by TPE between July and November 2019 by using Spectra Optia Apheresis System. The neurological diseases for which we treated our patients were myasthenia gravis, Guillan Barre syndrome (GBS) -axonal variant, chronic inflammatory demyelinating polyradiculoneuropathy (CIDP), multiple sclerosis (acute relapse in a patient with severe glaucoma), neuromyelitis optica. The procedure was done by the neurologist in the neurology clinic. **Results:** From these cases we want to present those with CIDP and AIDP to illustrate the importance of TPE for preventing the respiratory insufficiency and the need for mechanical ventilation. The first case is of a young male of 21 years old with CIDP with seven episodes of acute relapses that did not respond to other therapies and at the last three hospitalization was treated with TPE with subsequent improvement. The second case is of a young male of 27 years old with GBS axonal variant that developed a generalized motor deficit with a rapid evolution over two days also associating respiratory insufficiency. Although GBS axonal variant is known to have a worse prognosis after TPE the motor deficit regressed and a month after discharge he was totally asymptomatic. **Conclusions:** The neurologist has a series of therapeutic measures for the treatment of CIDP and GBS but the advantage of TPE is the elimination of autoantibodies and inflammatory soluble components followed by the rapid instalation of therapeutic effect.

Keywords: therapeutical plasma exchange, autoantibodies, Guillan Barre syndrome, chronic inflammatory demyelinating polyradiculoneu, acute relapses

OCCUPATIONAL HEALTH

SHIFT WORK SLEEP DISORDER AMONG HEALTHCARE WORKERS IN A ROTATING SHIFT SCHEDULE

Fugulyan Ecaterina¹, Moldovan H¹

¹Department of Occupational Medicine, UMFST Tîrgu Mureş

Background: A substantial percentage of shift workers develop shift work sleep disorder, a circadian rhythm sleep disorder characterized by excessive sleepiness, insomnia or both, as a result of shift work. This diminished workplace performance and increased accidents and errors. Our study aimed to determine whether the shift workers develop shift work sleep disorder at a higher percentage than the control group. **Material and methods:** : we have studied a group of registered nurses and nurses assistants who are on night shift, 41 people, 6 men and 35 women, mean age 42,43 years, st dev 7,23, who had to perform shift work on average 12,7 years, who complete a sleep diary, an Epworth Sleepiness Scale ESS used to measure average daytime sleepiness, a questionnaire on the known impacts of shift work, EKG; BP, Height, weight, BMI, and question about insomnia. For the witness group, we used a batch of pharmacists, who do not perform night shift, 42 people, 3 men and 39 women, average age 45.80 Years, who worked on average 21.89 years. **Results:** The Epworth Sleepiness Scale on the exposed group was 3,71, with standard deviation 2,41, and on the witness group was 2,59, st dev 1,87. We use the t-test to compare the 2 means, which show a p-value of 0,202, statistically significant, but both results were on the normal range. **Conclusions:** In our study, the exposed group showed a higher value of the ESS than the control group, but both were on the normal range. We found only short forms of insomnia among the exposed group, but that could be attributed to the characteristics of the shift work, our group had a rotating shift work schedule and not a fixed on.

Keywords: shift work sleep disorders, healthcare workers, rotating shift schedule

OPHTHALMOLOGY

PHACOEMULSIFICATION IN PATIENTS DIAGNOSED WITH DRY EYE AND RHEUMATOID ARTHRITIS

Vultur Florina¹, Horvath Karin¹

¹Department of Ophthalmology, UMFST Tîrgu Mureş

Background: The aim of our study was to examine the influence of cataract surgery upon corneo-conjunctival aspects and tear film changes after phacoemulsification in patients diagnosed with dry eye and rheumatoid arthritis. **Material and methods:** We performed an observational study which included 14 patients who underwent cataract surgery by phacoemulsification method. Povidone iodine solution was used according to the protocols for endophthalmitis prevention. Antibiotics, steroids and nonsteroidal anti-inflammatory drops, artificial tears were prescribed in the first month after surgery. Slit-lamp biomicroscopic examination with vital dye staining and qualitative and quantitative tear film aspects were evaluated before surgery and 1 month postoperatively. Statistical analysis was performed with SPSS 17.0 statistical software and GraphPad Prism. **Results:** Before surgery 13 patients had conjunctivitis sicca and 1 patient had superficial punctuated keratitis. At 1 month after surgery we observed an increase of dry eye symptoms and signs in 8 patients and superficial punctuated keratitis in 6 patients. A statistically significant decrease was revealed on tear film break up time compared to preoperative values ($p=0.0112$). Visual acuity increased after one drop of 0.5% carboxymethylcellulose. **Conclusions:** In our study patients with rheumatoid arthritis presented ocular surface changes after cataract surgery. Preoperative assessment in cataract surgery is essential and patients should be questioned as regards any rheumatological conditions which may predispose to corneal problems post surgery. Careful examination of ocular surface damages is mandatory before and after surgery in patients diagnosed with autoimmune diseases.

Keywords: cataract, dry eye, ocular surface, rheumatoid arthritis, tear film

ORTHOPEDICS

AVASCULAR BONE NECROSIS TREATMENT WITH BMAC AT A 15 YEAR OLD GIRL WITH ACUTE LYMPHOBLASTIC LEUKEMIA - CASE REPORT

Solyom A¹, Fodor P¹, Viragh Zs¹, Baţagă T¹, Solyom Reka², Papp Zsuzsanna², Gilyen B²

¹Department of Orthopedics II, UMFST Tîrgu Mureş

²Department of Pediatrics II, UMFST Tîrgu Mureş

Background: Avascular necrosis of the bone marrow without involvement of the corticoid bone is a known complication of corticosteroid therapy in acute lymphoblastic leukemia. There is no consensus on its management. Avascular necrosis of the femoral condyle was clinically symptomatic **Material and methods:** Authors present a 15 years old child wich developed femural condillar necrosis after cortisonic treatment for acut lymfoblastic leukemia. Authors want to illustrate that even an unpleasant but inevitable complication of the treatment of leukemia can be treated with appropriate methods, as this is clinically symptomatic and appeared in the femoral condyle. Core decompression and local injection of the bone marrow aspirate in the necrotic area where used to treat bone osteonecrosis developed after cortizonic treatment of the lymfoclastic leukemia. **Results:** The patient followed chemotherapy following the ALL-BFM 95 treatment Protocol with a 9 month intensive phase and a 3 years maintenance medication before the necrosis appeared. After decompression and local injection of the bone marrow aspirate, appropriate management of the patient the results were promising, 6 months after the intervention the patient has returned to her normal life, is able to do physical activity, sport without any complains. **Conclusions:** Acute lymphoblastic leukemia is the most common pediatric pathology. The inexistence of any consensus according to the treatment of this secondary necrosis gives us the opportunity to live with the cell therapy and orthobiologics, mostly at children where the activity of STEM cells is higher. Still further cases are needed to make any conclusions.

Keywords: bone marrow aspirate, lymfoblastic leukemia, osteonecrosis, core decompression, child

MID-TERM EFFECTS OF BONE MARROW ASPIRATE CONCENTRATE (BMAC) IN AVASCULAR BONE NECROSIS

Gilyen B¹, Fodor P¹, Virágh Zs¹, Solyom Réka², Băţagă T¹, Solyom Á¹

¹Department of Orthopedics II, UMFST Tîrgu Mureş

²Department of Pediatrics II, UMFST Tîrgu Mureş

Background: Avascular Necrosis (AVN) is a term that denotes bone death secondary to circulatory problems, a condition which is even aseptic. A wide variety of other conditions, and processes can lead to this disease , and it can appear in many places in the organism. Observed in early stages there is a good chance to treat with regenerative medicine and cell based therapy. **Material and methods:** We wanted to illustrate the benefits of the newly used BMAC based cell therapy in the treatment of AVN in different bones in the organism. We performed core decompression and local injection of the bone marrow aspirate in the necrotic areas in early Ficat and Arles stages. **Results:** We used the method on different patients mostly with femoral head necrosis, but also talus, calcaneus, femoral condyle and necrosis of the humeral head. We evaluated the objective and subjective symptomatology of the patients before and afterwards. **Conclusions:** The pain and other symptoms the patients had, disappeared in time as the aspirate and the STEM cells made their effect locally. After correct aftercare and reevaluation of the patients the evaluating scores became higher, and there were visible changes on the radiological and MRI examination too. The orthobiologics are yet new in orthopaedics. Also this is a safe and secure method which is using the patients material preventing any later complicaions.

Keywords: Orthopaedics, Othopaedics, BMAC, necroza, celule pluripotente

PATHOLOGY

LOW MALIGNANT POTENTIAL SOFT TISSUE TUMORS

Orban Ildiko¹, Satala C¹, Molnar C², Butiurca S³, Milutin Doina¹, Fülöp Emőke¹

¹Department of Pathology, UMFST Tîrgu Mureş

²Department of Surgery I, UMFST Tîrgu Mureş

³Department of Surgery II, UMFST Tîrgu Mureş

Background: Low grade fibromyxoid tumors and Pleomorphic hyalinizing angiectatic tumors are rare neoplasms, which appear usually in the subcutaneous soft tissue of the lower extremities and they demonstrate a variably spectrum of histologic images. Both lesions are extremely rare, non-metastatic, low malignant potential tumors. **Material and methods:** Case reports describe two middle aged patients who came to the surgical department for the same symptomatology: slowly growing unpainful subcutaneous formations. **Results:** Case1: 65 years old male patient who presented a mass localized subcutaneously in the latero-cervical region of the thorax. Macroscopic: partially encapsulated nodular solid mass measured 55x50 mm; on cut surface presented a whitish colour, and a central necrotized area. Microscopic: spindle cells in collagen stroma with focally myxoid transformation, low mitotic activity. Case2.: 55 years old female who presented with a slowly growing solid mass at the left inguinal region. Macroscopic: solid mass measured 100x50x28mm, which on cut surface presents white areas alternating with adipose tissue. Microscopic: ectatic blood vessels with hyalinized wall in a hypocellular stroma. On the periphery of the tumor hypercellular areas with pleomorphic but mostly spindled cells with no mitotic activity. **Conclusions:** Both of the described tumors show low malignant potential. The importance is to be removed in surgically safe with no remaining tumor tissue in the organism, because despite the fact that these two has low or non mitotic activity, they can reappear in a more malign sarcomatous variant. There etiological characteristics have not yet been clarified simply presenting these cases could get us more information about there qualities.

Keywords: soft tissue neoplasm, low malignant potential, Low grade fibromyxoid tumor, Pleomorphic hyalinizing angiectatic tumor, subcutaneous

SOLITARY FIBROUS TUMORS OF THE LUNG: REPORT OF TWO CASES

Toderic Ana-Maria¹, Baniás Laura¹, Gherman Denisa¹, Kövecsi A¹

¹Department of Pathology, UMFST Tîrgu Mureş

Background: Solitary fibrous tumors (SFTs) of the lung and pleura are relatively rare borderline mesenchymal neoplasms, with no sex predilection, generally with favorable prognosis and they usually occur after the fourth decade of life. In most of the cases the tumors present a benign behavior, but sometimes recur and present a locally aggressive growth. The most reliable indicator of aggressive behavior is the presence of more than 4 mitoses per 10 HPF. **Material and methods:** We report two pulmonary SFTs. In the first case, a 69-year-old female patient presented the signs of a pulmonary hydatid cyst in the left inferior lobe, on a CT scan examination. In the second case, a lung tumor in the left inferior lobe was identified on CT, in a 54-year-old male patient suffering from undifferentiated connective tissue disease (UCTB). Wedge resections of the inferior lobes were performed in both cases. **Results:** On gross examination, both wedge resection specimens present nodular, solid greyish-white, lobulated, well-defined masses. Microscopical aspects were similar, both tumors presented varying cellularity, a "patternless pattern" architecture, composed of spindle cells separated by thick collagen, with hyalinized areas and large calcified territories, disposed in a well-vascularised stroma, with branching haemangiopericytoma-like vessels of varying sizes. Tumor cells are relatively uniform with a limited amount of pale, indistinct cytoplasm and elongated, vesicular nuclei with evenly dispersed chromatin, with ≤ 1 mitotic figure/10HPF. No intratumoral necrosis was found. Immunohistochemically, both tumors showed positivity for vimentin, CD34, Bcl-2, CD99 and were negative for SMA, desmin, EMA, LCA, CD68. The proliferation index Ki67 was 1-2%. **Conclusions:** SFTs can mimic hydatid cysts and solid fibrotic nodules present in some UCTB. Even if SFTs are relatively rare tumors, they should be taken into consideration when performing the differential diagnosis.

Keywords: solitary fibrous tumor, lung tumor, spindle cell tumor

GIANT CELL MEDULLARY THYROID CARCINOMA - A CASE REPORT OF A CHALLENGING DIAGNOSIS IN CYTOLOGY

Beleaua MA¹, Szasz Eموke-Andrea², Balazs J³, Borda Angela²

¹Department of Pathology, UMFST Tîrgu Mureş

²Department of Histology, UMFST Tîrgu Mureş

³Department of Endocrinology, Clinical County Hospital of Targu Mures

Background: Medullary thyroid carcinoma (MTC) is a rare C cells-derived neuroendocrine thyroid cancer, secreting calcitonin. The aim of this paper is to present a case of MTC with unusual morphological features on FNA cytology. **Material and methods:** A 59-year-old female presented for a bilateral thyroid mass and discreet swallowing disorders. Neck ultrasound identified multiple nodules in both thyroid lobes and a high serum level of calcitonin, leading to a suspicion of MTC. The FNA performed in a small nodule, situated in upper part of the right lobe revealed two cell types: clusters and isolated giant cells, variable in size and shape, with highly pleomorphic nuclei and small monomorphic plasmacytoid cells. Some mitotic figures were also noticed. A total thyroidectomy with central neck dissection was performed, based on the malignant cytology, suspicious for MTC. **Results:** The gross examination of the surgical specimen revealed an 8mm white-tan nodule with a central calcification and multiple goitrous nodules in the remaining thyroid parenchyma. On microscopy the nodule presented a nested and trabecular architecture. The two cell types were also present on histology: round or plasmacytoid cells with eosinophilic granular cytoplasm, with single or double round monomorphic nucleus with coarsely clumped chromatin and indistinct nucleolus and giant, binucleated or multinucleated cells with highly pleomorphic nuclei and prominent nucleolus. In immunohistochemistry all the tumoral cells were positive for Calcitonin, CEA and Chromogranin and were negative for Thyroglobulin. The central neck lymph nodes had no metastasis. **Conclusions:** The microscopic features and the immunohistochemical panel, associated with the high serum level of calcitonin, confirmed the diagnosis of a giant cell medullary thyroid carcinoma. The presence of giant cells in MTC is a very unusual situation, and represents a challenge for the differential diagnosis not only in cytology, but also in histology.

Keywords: Medullary Thyroid Carcinoma, Giant Cells, C cells, Immunohistochemistry

ONCOCYTIC (HÜRTHLE CELL) VARIANT OF PAPILLARY THYROID CARCINOMA: CASE REPORT OF A RARE ENTITY

Nechifor-Boilă Adela¹, Borda Angela¹

¹Department of Histology, UMFST Tîrgu Mureş

Background: By presenting a case of oncocytic variant of papillary thyroid carcinoma (OVPTC), this paper aims to highlight the key features that guideline the positive and differential diagnosis of this rare variant, as well as to discuss the diagnostic pitfalls when dealing with Hürthle cells lesions of the thyroid. **Material and methods:** A 50-years-old female with no particular history was admitted to the hospital for a right thyroid nodule, incidentally discovered. Fine needle aspiration was performed and a diagnosis of "suspicious for follicular neoplasm, Hürthle cell type" (Bethesda IV category) was made. Consecutively, right lobectomy was performed and the specimen was sent to the Pathology Department. **Results:** On gross examination, a well-delimited, gray-whitish nodule, measuring 22 mm in greatest diameter was described in the right thyroid lobe. On microscopy, the nodule exhibited complex papillary structures, lined by cells with indistinct cell borders and abundant, granular, eosinophilic cytoplasm, characteristic of Hürthle cells. These cells showed the PTC' nuclear features: enlarged, optically clear, irregular nuclei, with thickened nuclear membranes and inconspicuous peripheral nucleoli. Nuclear grooves and pseudoinclusions were identified in a minority of cells. A lympho-plasmacytic infiltrate was present in the stroma surrounding the tumor cells. The tumor cells stained positive for Thyroglobulin and were negative for CEA, which confirmed the primary origin of the tumour in the thyroid follicular cells. A diagnosis of OVPTC was set and completion of the thyroidectomy was performed. No other nodules were present in the left thyroid lobe. **Conclusions:** When facing a thyroid tumor that shows extensive papillary arrangement of Hürthle cells, with classic PTC nuclear changes the diagnosis of OVPTC should be kept in mind. Although rare, OVPTC is important to be recognised due to its distinct pathological and prognostic characteristics.

Keywords: thyroid, rare, papillary carcinoma, oncocytic variant, prognostic

MAMMARY GLAND RHABDOMYOSARCOMA, A CHALLENGING DIAGNOSIS

Satală C¹, Bara T², Vlad Mădălina¹, Jung I¹, Simu Patricia³, Gurzu Simona¹

¹Department of Pathology, UMFST Tîrgu Mureş

²Department of Surgery II, UMFST Tîrgu Mureş

³Department of Radiology, UMFST Tîrgu Mureş

Background: Rhabdomyosarcoma is a relatively rare mesenchymal neoplasm that shows skeletal muscle differentiation. The aim of this paper is to highlight the difficulty of diagnosis of this type of tumor, in our case especially because that the site of the tumor was mammary gland in a male patient. **Material and methods:** We report the case of a 55 year old male patient that was diagnosed with mammary gland rhabdomyosarcoma. For the diagnosis, it were used standard histological techniques (light microscopy and classic, hematoxylin-eosine staining), and also, a large panel of immunostains for both positive and differential diagnosis. **Results:** The tumor consisted of two distinct cellular populations, the majority of the tumor cells being organized in clusters with different shapes and dimensions, with predominant perivascular localization. The cells showed marked pleomorphism, eosinophilic cytoplasm, some of them being multinucleated, with nuclei arranged at the periphery. Skeletal muscle differentiation was demonstrated by the positivity for desmin, miogenin and sarcomeric actin. The second population was composed by smaller, relatively monomorphic cells, with increased mitotic activity. Immunostaining of the second, minor population showed positivity for some of the neuroectodermal markers, the most representative being focal positivity for neurofilament, amongst others. **Conclusions:** With a biphasic phenotype demonstrated by using specific immune markers, both rhabdoid and neuroectodermal differentiation may place this tumor in the exceedingly rare group of malignant ectomesenchymomas.

Keywords: rhabdomyosarcoma, ectomesenchymoma, mammary gland, byphasic phenotype

WHEN THE BORDER BECOMES FUZZY: PITFALLS IN THE PATHOLOGICAL DIAGNOSIS OF PRIMARY MEDIASTINAL HODGKIN-LYMPHOMA

Constantin Gabriela¹, Mezei TL¹, Szodorai Rita¹, Bud V², Gherman Denisa¹, Gábos Sz¹, Horváth Emőke¹

¹Department of Pathology, UMFST Tîrgu Mureş

²Department of Surgery I, UMFST Tîrgu Mureş

Background: Classical Hodgkin Lymphoma (cHL) most often involves cervical lymph nodes followed by axillary, paraaortic and mediastinal regions. Majority of patient with mediastinal involvement are represented by nodular sclerosis subtype (NS), but massive mediastinal disease is an adverse risk factor. The current case provides an opportunity to discuss pitfalls in the diagnosis of lymphoproliferative disorders with CD 30 positive tumor cells characterized by different morphology. **Material and methods:** We present a case of a 31-year-old man with a massive tumor mass in the superior mediastinal region, visualized by CT scan. The patient has been relatively asymptomatic (other than local mass effect). A tumor mass biopsy was performed and a diagnosis of malignancy was made on frozen section. **Results:** In excised material a syncytial variant of nodular sclerosing Hodgkin's disease (NS-cHL) was diagnosed, an uncommon form with "sarcomatoid" appearance of tumor cells. In addition we found foci of typical sclerosis, characterized histologically by sheets or clusters of mononuclear Reed-Sternberg (RS) variants, arranged around large areas of necrosis. The presence of cohesive clusters and sheets of malignant cells with clear cytoplasm, vesicular nuclei and prominent nucleoli raised the suspicion of an anaplastic large cell lymphoma. The diagnosis was established using immunohistochemistry. On immunophenotyping, the neoplastic cells were strongly positive for CD30, CD15 and MUM1 associated with a pale nuclear staining for Pax5. LCA, CD20, CD3, CD10 and ALK stainings were negative. **Conclusions:** The classical phenotype of tumor cells confirmed the diagnosis of NS-cHL. Interesting features of this case are represented by the increased number of RS cells forming sheets (grade 2), mimicking anaplastic large cell lymphoma. Although grading system is not used in daily practice, in massive mediastinal disease serves as prognostic factor.

Keywords: Classical Hodgkin Lymphoma, Nodular sclerosing Hodgkin's disease, Anaplastic large cell lymphoma

SINONASAL GLOMANGIOPERICYTOMA A RARE SINONASAL TRACT NEOPLASMS ASSOCIATED WITH A EXOPHYTIC TYPE OF SCUAMOS PAPILOMA: REPORT OF AN UNUSUALLY CASE

Beleaua MA¹, Toderic Ana-Maria¹, Cășăuțanu B², Mocan Simona¹

¹Department of Pathology, UMFST Tîrgu Mureș

²Department of Otorhinolaryngology, UMFST Tîrgu Mureș

Background: Sinonasal glomangiopericytoma (SG) also called sinonasal haemangiopericytoma-like tumour, is a rare tumour (< 0,5% of sinonasal tract neoplasms) that demonstrate a perivascular myoid phenotype. Association with other type of tumours in the head and neck region is very rarely reported in the literature. **Material and methods:** We report a case of a 62-year-old male, with a naso-pharyngeal tumour mass. During clinical consultation another small lesion was identified on the right tonsillar pillar. Nasal endoscopy with resection of the left nasal fossa tumour was performed, along with excision of the tonsillar lesion. Both specimens were sent to Pathology Department for examination. **Results:** The left nasal fossa tumour was microscopically represented by a proliferation of monomorphic spindle cells, with limited amount of pale, indistinct cytoplasm and elongated, vesicular nuclei with evenly dispersed chromatin, without mitotic activity. Tumour cells were arranged in bundles with a prominent perivascular disposition. Immunohistochemically, the tumour cells were positive for SMA and negative for S100, CTK AE1/AE3, CD34, CD31. The lesion on the right tonsillar pillar was a squamous cell papilloma. **Conclusions:** Even if SG usually presents an indolent behaviour, there are different histopatological criteria predicting malignant evolution, including mitotic counts, cellular pleomorphism, dimension and local extensions.

Keywords: sinonasal glomangiopericitoma, spindle cells tumour, squamous cell papilloma

THE WORST PITFALLS IN HEMATOPATHOLOGY: HISTIOCYTIC NECROTISING LYMPHADENITIS (A CASE REPORT)

Vlad Daniela Mădălina¹, Horváth Emőke¹, Szodorai Rita¹, Toderic Ana-Maria¹

¹Department of Pathology, UMFST Tîrgu Mureș

Background: Histiocytic necrotising lymphadenitis (Kikuchi-Fujimoto disease) is a rare benign, self-limited disease presenting classically as cervical lymphadenopathy which affects more commonly young women. Clinically some of the patients have non-specific presentation, mimicking a viral infection or lymphoma/metastasis. The current case provides an opportunity to discuss the most important morphological aspects to avoid a lymphoma misdiagnosis. **Material and methods:** We present a case of a 32-year-old female with a right cervical lymph node enlargement. An excisional biopsy was conducted, followed by complex histological and immunohistochemical investigations for identifying Kikuchi-Fujimoto disease from other forms of cervical lymphadenitis or lymphomas. **Results:** At microscopical examination, the histological structure of the lymph node was partially intact, associated with extensive and multifocal coagulative necrosis in the cortical and paracortical regions, plentiful nuclear debris and large mononuclear cells in the periphery, abundant histiocytes, and absence of neutrophils and plasma cells. The diagnosis was established using immunohistochemistry. Immunohistochemical stains demonstrate CD68+/myeloperoxidase (MPO)+ histiocytes, CD68+/CD23 plasmacytoid dendritic cells, variable CD8+ lymphocytes and CD 30+ immunoblasts. **Conclusions:** Routine laboratory investigations and CT and MRI scans do not help in making a diagnosis of Kikuchi-Fujimoto disease. The gold standard diagnostic test is the histopathological analysis of excised lymph node biopsy specimen. Histologically it can mimic lymphoma. To avoid misdiagnosis, pay attention to age, involved site and morphology.

Keywords: cervical lymphadenopathy, histiocytic necrotising lymphadenitis, Kikuchi-Fujimoto disease

INCIDENTAL CERVICAL METASTASES OF PAPILLARY THYROID CARCINOMA IN LYMPH NODES OF PATIENT WITH SQUAMOUS CELL CARCINOMA OF THE PYRIFORM SINUS: CASE REPORT

Țugui Alexandra¹, Mocan Simona¹, Cășăuțanu B²

¹Department of Pathology, UMFST Tîrgu Mureș

²Department of Otorhinolaryngology, UMFST Tîrgu Mureș

Background: Malignancies of hypopharynx are common sites of head and neck malignancies, and frequently the patients have lymph node metastases at first presentation. On the other hand, papillary thyroid carcinoma (PTC) is the most common thyroid malignancy and the frequent site of metastases is the cervical lymph nodes. However, the incidental discovery of thyroid lesions in lymph nodes during a lymph node dissection performed for a hypopharynx tumor is an unusual clinical entity. **Material and methods:** We present the case of a 72 years old male with tumor of the right side of pyriform sinus. The patient underwent a total laryngectomy with right and left lateral neck dissections and a right total thyroidectomy. **Results:** Histological examination revealed squamous cell carcinoma, with extension to the right ventricular fold of larynx and metastases in 6 out of 48 bilateral cervical lymph nodes. In addition, there were 7 of the dissected lymph nodes with PTC metastases, including in some with SCC. The microscopic aspect was suggestive for a follicular variant of papillary thyroid carcinoma. No primary tumor was detected within the resected thyroid tissue. **Conclusions:** The incidence of PTC found in the cervical lymph nodes during neck dissection for patients with hypopharynx SCC is infrequent. The coexistence of PTC and SCC in the same lymph node it is even rarer. The behaviour of the disease is determined not by the thyroid neoplasm, but by the SCC. Management of these patients should be discussed in the light of thyroid ultrasonography and prognosis of SCC.

Keywords: neck dissection, hypopharynx, papillary thyroid carcinoma, squamous cell carcinoma

SPINDLE CELL SQUAMOUS CELL CARCINOMA A RARE VARIANT OF SCUAMOS CELL CARCIOMA: A CASE REPORT OUTLINING THE PRESENCE IN THE LEFT TRUE VOCAL CORD SITE

Toderic Ana-Maria¹, Cășăuțanu B², Mocan Simona¹

¹Department of Pathology, UMFST Tîrgu Mureș

²Department of Otorhinolaryngology, UMFST Tîrgu Mureș

Background: Spindle cell squamous cell carcinoma (SC-SCC) also called sarcomatoid carcinoma, is a rare tumour (<1% of all laryngeal malignancies) characterized by predominant malignant spindle and/ or pleomorphic cells, with predilection for men. **Material and methods:** We report a case of a 65-year-old male, with a laryngeal tumour mass. In the first phase a biopsy specimen was sent and after the histopathological result a totally laryngectomy was performed and the specimen was sent to Pathology Department for examination. **Results:** On gross examination of the laryngectomy specimen, a polypoid tumour was observed at the level of left true vocal cord. Microscopically, the tumor appearance was the same in the biopsy and in the surgical specimen, represented by a proliferation of pleomorphic spindle cells, with frequent atypical mitotic figures. No classic component of squamous cell carcinoma was found. Immunohistochemically, the tumour cells were faintly positive for SMA, negative for p63, CTK AE1/AE3, S100 and the Ki67 index was with high positivity. **Conclusions:** SC-SCC is a variant of squamous cell carcinoma, rarely developing in the larynx, because of particular polypoid appearance and true vocal cord site has a better prognostic then conventional scuamos cell carcinoma (SCC). Because of purely spindle cells form that lacks a series of immunohistochemically stains specific for epithelial tumours; the diagnosis can be very difficult.

Keywords: spindle cell squamous cell carcinoma, spindle cells tumour, vocal cord tumour

MALIGNANT BRENNER TUMOR OF THE OVARY: CASE REPORT

Șincu Mihaela¹, Tinca Andreea¹, Bartha R¹, Turcu M¹, Cotoi OS², Coros M³, Turdean S¹

¹Department of Pathology, UMFST Tîrgu Mureș

²Department of Pathophysiology, UMFST Tîrgu Mureș

³Department of Surgery III, UMFST Tîrgu Mureș

Background: Ovarian neoplasms are a heterogeneous group composed of tumors showing epithelial, germ cell, and sex cord stromal differentiation. Ovarian Brenner tumor (BT) is a rare epithelial ovarian cancer that accounts for less than 2% of ovarian neoplasms. Brenner tumors are categorized as benign, borderline, or malignant. **Material and methods:** A 81-year-old patient presents in the surgery department for abdominal pain with constipation. The CT examination reveals the presence of a tumor process that includes the right ovary, ileum and appendix. Right aneectomy was performed with resection of an ileum fragment. **Results:** The gross analysis revealed a tumor-transformed ovary measuring 70x45x40 mm, with an area of discontinuity at the level of the capsule over a distance of 45 mm. On the section the tumor had a compact appearance and a whitish color. The histopathology analysis revealed an infiltrative tumor proliferation with nests architecture, composed of tumor cells with transitional appearance, polygonal, with pale cytoplasm, eosinophil with clear nucleolus and marked cyto-nuclear atypia. The tumor cells are surrounded by a fibrous stroma. The tumor infiltrates both the ileum and the appendix. Immunohistochemical tumor cells resulted positive for immunoblotting with CK20,CK7,p16 and negative for calretinin, p53, SMA and Vimentin. Given the morphological aspect and the immunohistochemical profile, the diagnosis of Brenner malignant tumor has been established. **Conclusions:** Due to the rarity of these tumors, the best treatment strategy will likely be developed through the reporting of clinical experience.

Keywords: Brenner tumor, malignant, transitional epithelium, ovary, ileum

UPDATE IN STAGING BLADDER CANCER

Loghin Andrada¹, Dee Edith¹, Chibelea C², Boilă NA², Borda Angela¹

¹Department of Histology, UMFST Tîrgu Mureș

²Department of Urology, UMFST Tîrgu Mureș

Background: Urothelial carcinoma (UC) of the urinary bladder is a heterogeneous disease with treatment ranging from surveillance to radical cystectomy, decisions that are based on accurate and precise staging. Objective -To highlight the changes and/or clarifications within the 8th edition of American Joint Committee of Cancer (AJCC) Staging Manual that may affect daily practice. **Material and methods:** The most important issues are addressed to Lymph Node (N) and Metastasis (M) categories, substaging pT1 UCs, staging of UC in the bladder diverticula and of UC involving the prostate gland. Perivesical LNs are now included in the regional LNs and considered N1 or N2, based only on the number of LNs involved, while nonregional LNs, beyond the common iliac, are classified as M1a and all other non-LN metastasis as M1b. Invasion of UCs in lamina propria without extension into muscularis propria is defined as pT1. The 8th edition of AJCC recommends substaging pT1 in order to differentiate a limited invasion from an extensive one, but it does not recommend any method for doing so. **Results:** Because of the unique anatomy of the diverticula, with absence of the muscularis propria, pT2 tumours do not exist, tumours with superficial invasion in the lamina propria should be staged as pT1, and tumours with deeper invasion involving the perivesical tissue should be staged as pT3. Regarding the involvement of the prostate stroma by UC, it has been demonstrated that transmural invasion through the bladder wall into the prostatic stroma is associated with poor prognosis, and should be staged as pT4, in contrast with UC that invades prostatic stroma through the prostatic urethra, which is less aggressive, and should be staged as a separate primary urethral tumour, stage pT2. **Conclusions:** The 8th edition of AJCC Staging Manual provides a basis for staging bladder cancer, but further refinement, such as for pT1 substaging are necessary.

Keywords: urothelial carcinoma, American Joint Committee of Cancer (AJCC) Staging, prognosis

PEDIATRICS

THE DIAGNOSTIC VALUE OF AAR AND APRI IN LIVER IMPAIRMENT ASSOCIATED TO PEDIATRIC OBESITY

Mărginean Cristina Oana¹

¹Department of Pediatrics I, UMFST Tîrgu Mureş

Background: Multiple laboratory parameters were assessed by different studies in order to improve the non-invasive diagnostic of liver steatosis or fibrosis associated to obesity. Thus, aspartate aminotransferase (AST)/platelets ratio index (APRI) and AST/alanine aminotransferase (ALT) ratio (AAR) were found as the most accurate in adults with obesity. **Material and methods:** We performed a cross-sectional study on 287 children, 3-18 years of age, admitted in the Pediatrics Clinic 1 Tîrgu Mureş, which were divided according to the body mass index (BMI) into two groups: group 1, comprising 77 children with obesity (BMI Percentile (P) ≥ 95), and group 2, control group, comprising 210 children with normal weight (BMI P ≥ 5 and < 85). **Results:** The mean ages were similar between the two groups ($p=0.0745$). Regarding gender distribution, we noticed a predominance of females (54.76%) in control group as compared to the study group where we encountered a higher proportion of males, 66.23% versus 33.77% females. Our findings revealed that obesity was more frequent among boys ($p=0.0016$). children with obesity were found to have significantly higher values of platelets, $336.4 \pm 90.12 \times 10^3/\mu\text{l}$ as compared to the normal weight ones, $298.5 \pm 67.27 \times 10^3/\mu\text{l}$ ($p = 0.0005$). Abdominal ultrasound revealed no pathological changes in normal weight children. Contrariwise, in children with obesity, our study revealed that 24 (31.17%) presented hepatomegaly, 41 (53.25%) hepatomegaly and steatosis, while 12 patients (15.58%) only steatosis. The values of AST, ALT and AAR were significantly higher in children with obesity ($p=0.0065/p<0.0001/p<0.0001$). On the other hand, we found no significant differences in terms of APRI between the two groups ($p=0.9827$). **Conclusions:** Liver transaminases and AAR might be accurate indicators of liver impairment associated to pediatric obesity.

Keywords: Pediatrics I, Pediatrics I, obesity, APRI, AAR, liver steatosis, liver fibrosis

THE ROLE OF SOCIO-ECONOMIC ENVIRONMENT IN THE OUTCOME OF TYPE 1 DIABETES MELLITUS

Moreh Zsuzsanna¹, Becze Kinga¹, Crişan Sabina¹, Solyom Reka¹

¹Department of Pediatrics II, UMFST Tîrgu Mureş

Background: Type 1 diabetes mellitus is one of the most frequent pediatric chronic diseases and requires a lifelong complex treatment plan. During treatment, aside from the diet, insulin therapy and physical activity, the education of the patient and the entire family is of the utmost importance. Through our study we would like to highlight the importance of the Type 1 diabetes mellitus patients' continuous education for a better control of the disease. We consider that in order to prevent acute and chronic complications, the patients' and families' education is equally as important as insulin therapy and **Material and methods:** Our study comprised a lot of 45 patients with Type 1 diabetes mellitus from the 2nd Pediatrics Clinic's cases, for which we have followed the disease evolution according to life conditions, the families' level of education, possibility of referral to specialized medical services as well as treatment adherence. **Results:** Our study reveals that 27% of patients come from precarious social conditions, 57% are from a rural environment, 34% live in single-parent families, 59% have a low treatment adherence, 43% have a low rate of addressability to specialized medical services. The results show that the majority of patients facing these issues have an unfavorable prognosis, maintaining very high levels ($>10\%$) of HbA1c. **Conclusions:** We consider that for a favorable prognosis of Type 1 diabetes mellitus in children, aside from following a certain diet plan and access to modern treatment and monitoring possibilities, more frequent check-ups are necessary for a better understanding of each particular case. For the same purpose, the improvement of social assistance services as well as increasing the number of specialized medical personnel would be very beneficial in the treatment of Type 1 diabetes mellitus patients.

Keywords: diabetes mellitus, education, addressability, environment, treatment adherence

ANALYSIS OF THE CLINICAL - ANTHROPOMETRIC AND PARACLINICAL PARAMETERS IN A GROUP OF CHILDREN WITH NUTRITIONAL STATUS DEFICIENCY DISORDERS

Pitea Ana Maria¹, Ungureanu Loredana², Man Lidia¹

¹Department of Pediatrics I, UMFST Tîrgu Mureş

²Student masterand, UMFST Tîrgu Mureş

Background: Malnutrition has serious implications for recovery and is generally associated with increased morbidity and mortality. **Aim:** evaluation of anthropometric and laboratory parameters in a group of pediatric patients with nutritional status deficiency disorders. **Material and methods:** The study included 27 underweight children (Weight for Age - WFA below -2DS), 25 subjects with acute malnutrition (Weight for Height - WFH below -2DS) and 52 patients with chronic malnutrition (Height for Age - HFA below -2DS); the anthropometric indicis (obtained using the software Growth Analyzer) were analyzed, as well as some hematological (hemoglobin) and biochemical paraclinical data (blood sugar, total cholesterol, serum triglycerides, total proteins, albumins levels and sideremia). Statistical interpretation of the data was performed using the MedCalc program. **Results:** The group included 50 girls and 57 cases from the urban area, the average age was 5.04 ± 0.41 years, with no differences between subgroups regarding these parameters. The evaluated anthropometric indices showed statistically significant differences between the different types of nutritional disorders, and the laboratory parameters were not significantly different, except for hemoglobin, with lower values in children with acute malnutrition ($p=0.04$). **Conclusions:** Demographic aspects do not show statistically significant differences between children with underweight, those with acute or chronic malnutrition; from the laboratory parameters in the studied group, only hemoglobin showed statistically significant differences between the three types of nutritional status deficiency disorders.

Keywords: Pediatrics, Pediatrics, anthropometry, child, malnutrition, underweight

PEDIATRIC HEART TRANSPLANTATION FOLLOW-UP IN ROMANIA – THE FIRST CASE SERIES

Muntean Iolanda¹, Toma Daniela¹, Gozar Liliana¹, Paşcanu S², Hadadi L³, Sin Anca⁴, Suci H⁵

¹Department of Pediatrics III, UMFST Tîrgu Mureş

²Intensive Care Unit Department, Institute of Cardiovascular Disease and Transplantation Tg. Mures, Romania

³Department of Internal Medicine V, UMFST Tîrgu Mureş

⁴Department of Cell Biology, UMFST Tîrgu Mureş

⁵Department of Surgery V, UMFST Tîrgu Mureş

Background: Heart transplantation is the treatment of choice in end-stage heart failure. The aim of this report is to present the first results of the pediatric heart transplantation in Romania. **Material and methods:** We have reviewed the heart transplanted children's medical records from the Institute of Cardiovascular Disease and Heart Transplantation Tg.Mures. **Results:** In our Center, eight heart transplantations have been performed in children so far, mostly in the last four years. The children aged between 3 - 17,9 years (average 12,62 years), with 1:1 sex ratio. Among the heart-transplanted cases, 6 were previously diagnosed with dilated cardiomyopathy and 2 with restrictive cardiomyopathy. The posttransplantation immunosuppressive regimen includes induction therapy with polyclonal anti-thymocyte antibody and high-dose methylprednisolone and maintenance therapy with tacrolimus, mycophenolate mofetil and prednisone. The 1 year survival rate among the heart transplanted children was 100%. The rejection rate was 37,5%. Three cases developed moderate graft rejection: two early (< 1 year) and one late rejection (> 1 year). Although endomyocardial biopsy was used for the diagnosis of rejection, other investigations (BNP, ECG, and echocardiography) were helpful in follow-up. The rejection episodes were reversed with proper immunosuppressive therapy. Unfortunately, two of our first heart transplanted children have experienced sudden cardiac death at home, after 2-3 years of follow-up. **Conclusions:** Due to the small number of donors, the number of heart transplanted children is reduced in our country. Heart transplant rejection is a serious complication, and endomyocardial biopsy is mandatory for its diagnosis. Other investigations like echocardiography, electrocardiography and brain natriuretic peptide are useful noninvasive methods in follow-up of cases with rejection. Multidisciplinary team approach is essential in the field of pediatric heart transplantation.

Keywords: Heart transplantation, children, rejection

ACUTE RESPIRATORY INSUFFICIENCY DUE TO URINARY RETENTION – CASE STUDY

Solyom Reka¹, Bodescu Virginia¹, Becze Kinga¹, Moreh Zsuzsanna¹, Papp Zsuzsanna², Horvath Maria Adrienne¹

¹Department of Pediatrics II, UMFST Tîrgu Mureş

²Department of Pediatrics III, UMFST Tîrgu Mureş

Background: Acute urinary retention is a relatively rare pathology in children. Congenital illnesses such as neuromuscular diseases or malformations of the urinary tract are usually in the etiological background. **Material and methods:** The authors are presenting the case of a 7 year and 9 months old boy, whose medical history showed that he has been suffering from congenital syphilis, spastic cerebral paresis, epilepsy and recurring urinary tract infection. In addition, the patient was diagnosed with severe psychomotor retardation and chronic constipation. He was brought in to Pediatric Clinic nr.2 suffering from severe respiratory insufficiency and in a generally poor condition and was given emergency care. **Results:** During the objective examination the patient was diagnosed with severe malnutrition, abdominal distension and edema in the lower limbs, furthermore, intercostal and subcostal retractions. He presented tachypnea, tachycardia, and his oxygen saturation was 86%. We have conducted lab tests and imaging examinations the results of which showed a severe case of urinary retention. With the help of a catheter the bladder was relieved of 1300 ml urine due to which the general condition of the patient quickly improved and the respiratory issues have ceased. **Conclusions:** Acute respiratory insufficiency in children is usually caused by diseases of the respiratory tract or cardiac diseases, however in the case of bedridden patients suffering from multiple trauma/conditions we have to take into consideration the urinary retention caused by constipation due to the low frequency of bowel movement, which in extreme amounts can also lead to dyspnea and even respiratory insufficiency. If proper treatment is provided in time, diuresis can be restored and the damaging of the kidneys can be prevented.

Keywords: urinary retention, respiratory insufficiency, child, malnutrition, constipation

ASYMPTOMATIC TERM AND NEAR TERM NEWBORNS WITH INTRACRANIAL HAEMORRHAGES: RELATION TO OBSTETRIC AND NEONATAL RISK FACTORS

Suciu Laura¹, Cucerea Manuela¹, Simon Marta¹

¹Department of Pediatrics IV, UMFST Tîrgu Mureş

Background: In the last years intracranial haemorrhage has been diagnosed more often in term and near term neonates due to improved neuroimaging techniques. The aim of this study was to characterise the incidence, type, presentation, associated factors and short term outcomes of intraventricular haemorrhage (IVH) in a population of full term and near term newborns admitted in an academic perinatal care center. **Material and methods:** We retrospectively retrieved records and images of 71 infants (2017-2018) in whom a imaging diagnosis of IVH was made and clinical data of the mothers and neonates were compared with a control healthy group of 374 infants admitted in the hospital in the same period of time. **Results:** Forty nine infants had IVH grade I and 22 had IVH grade II. A total of 20 infants had bilateral IVH. Thirty-eight percent of cases were male. IVH was independently associated with higher maternal age (odds ratio[OR] 1.98, 95% CI, 1.5-3.8), primiparity (OR 2.2, 95% CI, 1.9-4.2) assisted delivery (OR 1.44, 95% CI, 1.1-2.7) and latency interval longer than 6 hours (OR 1.46, 95% CI, 1.6-4.3). **Conclusions:** Perinatal risk factors associated with IVH were low Apgar score at 5 minutes, and higher weight loss during first 72 hours age compared to healthy controls. The majority of infants had a good clinical outcome.

Keywords: Intracranial hemorrhage, Term newborns, Perinatal factors

ABDOMINAL PAIN IN CHILDREN AND ULTRASONOGRAPHY – CASE PRESENTATION

Bodescu Virginia¹, Voicu Sanda Lucia¹, Horvath Adrienne¹, Moreh Zsuzsanna¹, Solyom Reka¹, Rusu Cristina²

¹Department of Pediatrics II, UMFST Tîrgu Mureş

²student, UMFST Tîrgu Mureş

Background: Ultrasonography has a well-established place in management of pediatric emergencies, right after initial assessment, based on ABCDE protocol. Bedside ultrasonography has been successfully used in trauma (FAST protocol) as well as in surgical and medial emergencies in children and it is included in emergency protocols. Abdominal pain in children is a very common symptom, but in some cases may be the main symptom of a serious disease. **Material and methods:** The authors present two cases of children presenting at emergency room with abdominal pain and distention. First case, a patient with cerebral palsy who was admitted due to sudden abdominal distention and oliguria, noticed by parents for days. The second patient presented with abdominal pain, distention and constipation. **Results:** In both cases, a CT was performed initially and ultrasonography after a while, leading to delay in diagnosis. In both cases, abdominal ultrasonography showed a very good correlation with CT or MRI **Conclusions:** In all pediatric patient with abdominal pain and distention, an abdominal ultrasonography exam should be the first choice, in order to rule out common diseases, and to avoid unnecessary and expensive examination. Ultrasonography had shown good correlation with CT and MRI, but these exams should be reserved for stadialisation of disease, or at surgeon request, before surgery.

Keywords: paediatrics, paediatrics, abdominal distention, ultrasonography

RENAL INVOLVEMENT IN HENOCHE - SCHONLEIN PURPURA – A CASE REPORT

Man Lidia¹, Pitea Ana Maria¹, Duicu Carmen¹

¹Department of Pediatrics I, UMFST Tîrgu Mureş

Background: Henoch-Schonlein Purpura is a non-thrombocytopenic vasculitis characterized by IgA deposition in small vessels. It is the most common vasculitis of the child. The positive diagnosis is established in the presence of palpable purpura and one or more of the following: digestive, joint, renal involvement. Renal impairment is the main risk factor for adverse evolution of Henoch-Schonlein Purpura. **Material and methods:** We present the case of a 6.10 years old boy, in which the onset of the disease was through joint damage. **Results:** The patient presented petechiae and palpable purpura, he received a non-steroidal anti-inflammatory treatment, with a slow favorable evolution of the symptoms. Digestive manifestations with abdominal pain and hematemesis occurred within 10 days after the onset. Corticosteroid therapy was initiated with favorable evolution. Renal changes with microscopic hematuria and nephrotic proteinuria appeared on reassessment three weeks after the onset. Initially treatment with corticosteroid was continued, and angiotensin-converting enzyme inhibitor was added. **Conclusions:** In Henoch-Schonlein purpura, the renal impairment may occur during evolution, after the remission of the other manifestations, even if the patient has corticosteroid therapy.

Keywords: Henoch-Schonlein Purpura, proteinuria, renal involvement, corticosteroids, pediatrics

PHARMACY

MODERN ASPECTS OF DRUG DISCOVERY THROUGH RATIONAL DESIGN

Rusu Aura¹, Uncu Livia²

¹Department of Pharmaceutical and Therapeutic Chemistry, George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Targu Mures, Romania

²Department of Pharmaceutical Chemistry and Toxicology, Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova, Chisinau

Background: The rational design of drugs begins with Paul Erlich's studies of the systematic testing of several chemical compounds. Initially, drug discovery was more chemically oriented. Nowadays, drug development strategies are more oriented toward biological targets and molecules with interesting biological properties. However, the design of a new drug is a long process with increasing costs. **Material and methods:** Discovery of a new drug can be accomplished by several screening methods as systematic screening, high throughput screening (HTS), and virtual screening (VS). Structural activity relationship (SAR) plays an important role in optimizing the lead compound, involving simultaneously the optimization of physicochemical and biological properties. In addition, quantitative structure activity relationships (QSAR) through mathematical models correlate the dependence of various biological activities with their physicochemical properties or with the absence or presence of structural elements. **Results:** Free and commercial software and other tools are available to perform a structure-based VS workflow. Structure-based drug discovery (SBDD) becomes an important strategy that will reduce the costs and development time in pharmaceutical industry. **Conclusions:** Currently, HTS has several disadvantages (high cost, long process, unknown mechanism of action of the active ingredient) that are counteracted by the rational, SBDD. Certainly, the design of new drugs will not be carried out in the future without computational methods.

Keywords: Drug discovery, Virtual screening, SAR, QSAR, SBDD

ANTIBACTERIAL AND ANTITUMOR ACTIVITY OF THE SPECIES PRUNELLA VULGARIS L.

Groșan Alexandra¹, Ștefănescu Ruxandra², Man A³, Vari C¹, Muntean Lucia Daniela⁴

¹Department of Pharmacology and Clinical Pharmacy, UMFST Tîrgu Mureș

²Department of Pharmacognosy and Phytotherapy, UMFST Tîrgu Mureș

³Department of Microbiology, UMFST Tîrgu Mureș

⁴Department of Analytical Chemistry and Drug Analysis, UMFST Tîrgu Mureș

Background: *Prunella vulgaris* L., known as the self-heal herb with beneficial effects on human health, which have been proven especially by Asian researchers. The aim of this study was to evaluate the antitumor activity and the antibacterial effect on different bacterial strains, including multidrug-resistant ones, depending on the type of solvent used (aqueous, hydroalcoholic), the plant product taken into consideration (spike inflorescence, leaf), its quantity and the concentration of active principles. **Material and methods:** For screening of antimicrobial susceptibility, both minimum inhibitory concentration and minimum bactericidal concentration were determined on *Escherichia coli*, *Klebsiella pneumoniae*, *Providencia stuartii*, *Pseudomonas aeruginosa* and methicillin-resistant *Staphylococcus aureus* species, including reference strains and hospital strains. Leaves and flower extracts (aqueous and 70% methanolic) were first assessed, and the one with the best antibacterial potential was further tested as a concentrated extract. Antitumor activity was determined using an in vitro method for evaluating the antimigration potential of *Prunella vulgaris* L. extract on MDA-MB-231 cells. **Results:** Inflorescence extracts showed better bacteriostatic effects than leaf extracts on most bacteria, in both aqueous and hydroalcoholic extracts. The concentrated extract of spike inflorescence showed measurable activity, with good effects on Gram-positive bacteria, but also on multidrug-resistant Gram-negative ones. The 70% methanolic extract of the species *Prunella vulgaris* L. (spike inflorescence) demonstrated a concentration-dependent antitumor activity. **Conclusions:** The results suggest that *Prunella vulgaris* L. extracts present antibacterial potential in the complementary treatment of multidrug-resistant infections. The extract from the spike inflorescence of *Prunella vulgaris* L. prevents the proliferation of the mammary adenocarcinoma cell line.

Keywords: *Prunella vulgaris* L., antibacterial, antitumor

SOCIAL SCIENCES

INTERACTIVE METHODS APPLIED IN SOCIO-HUMAN DISCIPLINES

Pașca Maria Dorina¹

¹Department of Ethics and Social Sciences, UMFST Tîrgu Mureș

Background: The application of interactive methods in socio-human disciplines in medical education, such as: medical psychology, medical pedagogy, medical sociology and doctor-patient communication, represents a sine qua non requirement in achieving the proposed items within the pedagogical time-related course and / or seminar according to the curriculum in the study. Thus, taking into account the specificities of the course and / or the seminar as well as the feedback achieved between the two actors: student-teacher vs teacher-student, the logistics of teaching-learning didactics, it will emphasize the need to use interactive methods in order to obtain the expected results. Also, starting from: words, thoughts, quotes, therapeutic stories and concluding with interactive exercises / games, the entire pedagogical corollary will quantify the success of such an interactive-creative educational approach at the level of medical university education. In this context, addressing to the medical students from both the preclinical and clinical cycle, the new didactic-university approach responds to the demands of such interactive and interdisciplinary learning, decoding new bio-psycho-social-pedagogical structures related to the development of the individual over time, the turn of the professional success and not only, the ethical-moral value being predictable. **Material and methods: Results: Conclusions:**

Keywords: Ethics and social sciences, Ethics and social sciences, interactive, student, method, professor, socio-hum

NEW DEVELOPMENTS IN ENGLISH AND GERMAN FOR HEALTHCARE – HELP2 PROJECT

Pop Anișoara¹

¹Department of Foreign Languages, UMFST Tîrgu Mureș

Background: The need for both classical and digital materials for learning and consolidation of foreign languages for the medical professions is becoming more and more stringent in a Europe under constant population and workforce movement. English plays the role of Lingua Franca not only for professional and scientific publications but also for the interaction between doctors and patients belonging to different cultures. Of late, German has also marked a similarly rising trend due to the continuous influx of medical personnel to German-speaking countries. **Material and methods:** HELP2 (Healthcare Language Learning Programme 2 <https://help2project.eu/>) is an Erasmus+ strategic partnership project, follow-up of the first HELP (<https://help-theproject.eu/moodle/>), that responds to this need for doctor-patient Medical English (ME) and intercultural communication, through the design of 14 new thematic modules in English and adaptation/translation and creation of 10 new modules in German. **Results:** The materials created by the 8 European partners (Czech Republic, Romania, Poland, Germany, Portugal, Bulgaria, Lithuania, Slovakia) will be available in paper-based format/e-book, as a mobile application, and online platform (downloadable content for self-study). Among the new modules: Nutrition and Dietetics, Dentistry, Palliative Care, Emergency Medicine, Paediatrics, Family Medicine, Physiotherapy, etc. Each module is practically oriented and includes: an introductory tutorial, key words, language corner, listening and video recorded by native speakers, as well as a variety of interactive exercises The added value of the project and its outcomes is rendered by the comprehensive European perspective on ME learning, material availability free of charge, practice orientation, focus on communication skills and motivating content. The target users are medical students, doctors, nurses and other healthcare staff preparing to work abroad, language teachers in universities, translators and interpreters in healthcare. **Conclusions:** To benefit from the project results, please follow us on FB <https://www.facebook.com/Help2ErasmusPartnership/> and on the project site: <https://help2project.eu/>.

Keywords: Humanities, communication, intercultural competence, English and German for healthcare, HELP2 project

UROLOGY

RENAL SUPRASELECTIVE ARTERY EMBOLIZATION IN PATIENTS WITH ARTERIAL FISTULA AFTER PERCUTANEOUS NEPHROLITHOTOMY (PCNL). A CHANCE TO AVOID THE NEPHRECTOMY.

Porav-Hodade D¹, Marginean L², Todea-Moga C¹, Martha Orsolya¹

¹Department of Urology, UMFST Tîrgu Mureş

²Department of Radiology, UMFST Tîrgu Mureş

Background: Patients with significant bleeding after PCNL due to a vascular fistula represent a major urological emergency. In the absence of a prompt reaction, this can lead to hemorrhagic shock and death. Renal supraseductive vascular embolization represents the modern alternative to open surgery which can lead in most cases to nephrectomy. **Material and methods:** Between 2009-2019, more than 1000 patients underwent PCNL surgery for renal lithiasis. All patients had a percutaneous nephrostomy at the end of the intervention. Postoperatively in 2 patients, an important episode of macroscopic hematuria was encountered due to the arterial fistula. In one patient hemorrhage appeared 1 day postoperatively, and the second one 3 days postoperatively, after suppression of nephrostomy. For both patients, supraseductive arterial embolization was performed for the artery responsible for fistula. The intervention was performed under local anesthesia using the femoral artery approach. Embolization was performed by using specific coil or tacho-syl material. **Results:** The duration of the 2 interventions was 35, respectively 45 minutes. In both cases, the embolization was complete with the immediate disappearance of the bleeding episode. Patients were discharged 24 hours postintervention. Ultrasound control at 3 and 6 months revealed a normal kidney aspect. **Conclusions:** Renal supraseductive embolization in patients with post-PCNL arterial fistula is the gold standard therapeutic option for resolving this postoperative complication to avoid open intervention and even nephrectomy.

Keywords: PCNL, supraseductive arterial embolization, Kidney lithiasis, macroscopic hematuria

BLADDER EXPLOSION DURING TRANSURETHRAL RESECTION OF BLADDER TUMOR: A RARE COMPLICATION

Nechifor-Boila IA¹, Ghirca Veronica², Kosza H², Martha Orsolya², Chibeleian C²

¹Department of Anatomy, UMFST Tîrgu Mureş

²Department of Urology, UMFST Tîrgu Mureş

Background: Bladder explosion is a very rare complication occurring during Trans Urethral Resection of Bladder Tumor (TURBT), caused by a large quantity of gas released during resection combined with poor resistance of the bladder wall. We aimed to present the management and consequences of such complication in a patient that was operated in our department. **Material and methods:** A 83-year old male patient known with benign prostatic hyperplasia (BPH) was hospitalized with gross hematuria in our department. Preoperative ultrasound showed an enlarged prostate with no suspicion of bladder tumor. As conservative treatment failed, the patient was rushed into surgery aimed at obtaining hemostasis. Intraoperatively, a multifocal bladder tumor was diagnosed with extension to the bladder triangle and lateral walls. TURBT was initiated and the tumoral masses were resected. During surgery a loud noise was heard and a large tear in the bladder dome was found. Immediate laparotomy was performed. **Results:** A subperitoneal anfractuous bladder tear was found as well as an inoperable tumor-infiltrated bladder and prostate, with multiple retroperitoneal metastases. Radical cystectomy was not possible as the bladder was fixed to the surrounding structures. After cystostomy, bilateral ureterostomy was performed. The recovery of the patient was difficult, with persistent lymphedema and complete removal of drains at day 10 postoperatively. The histopathological diagnosis was Anaplastic carcinoma of the bladder T4N1M0. **Conclusions:** Surgical repair of bladder explosions during TURBT is possible although the outcome of the patient mostly subjected by the type and stage of the underlying tumor.

Keywords: bladder tumor, explosion, bladder cancer, anaplastic, TURBT

ENHANCED RECOVERY AFTER SURGERY (ERAS) PROTOCOL FOR RADICAL CYSTECTOMY PATIENTS: IMPROVING POSTOPERATIVE OUTCOMES

Chibelea C¹, Nechifor-Boila IA², Martha Orsolya¹

¹Department of Urology, UMFST Tîrgu Mureş

²Department of Anatomy, UMFST Tîrgu Mureş

Background: Radical Cystectomy (RC) is the standard of care in muscle-invasive urothelial carcinoma patients with results depending on several factors: age at surgery, general patient status, TNM staging of the disease as well as the surgical technique. Enhanced Recovery after Surgery (ERAS) is a new pre- and postoperative patient care protocol aimed at improving postoperative outcomes, increasing patient quality of life as well as decreasing hospital stay as well as hospitalization costs. We aimed to review the impact of ERAS use in RC patients using the 2019 guidelines of the European Association of Urology as a primer. **Material and methods:** We performed a systematic review of the available studies in PubMed published between 2014-2019 using the keywords "ERAS" and "Radical cystectomy". From the resulting list, we considered only the clinical trials and broad reviews. The selected studies were reviewed for technical accuracy and their results were compiled in the study database. **Results:** The available ERAS protocol in RC patients includes specific measures both for pre and postoperative care, including cessation of smoking, preoperative mobilization of the patients in order to increase muscle tone, preoperative nutrition assessment, cardiopulmonary exercise if necessary. Specific bowel preparation was dropped, being substituted with a preoperative carbohydrate loading. After surgery, early removal of the nasogastric tube is recommended as well as early mobilization. Hospital discharge can be performed at day 4 after surgery if patient status is good. **Conclusions:** ERAS protocols offer improved patient recovery when compared to the available protocol and could become a new standard-of-care in RC patients.

Keywords: ERAS, enhanced recovery, radical cystectomy, bladder cancer, hospital stay

LOWER URINARY TRACT DYSFUNCTIONS IN PATIENTS WITH DIABETES

Ghirca Veronica¹, Chibelea C¹, Porav-Hodade D¹, Todea-Moga C¹, Nechifor-Boilă IA¹, Amota Orsolya¹, Martha Orsolya¹

¹Department of Urology, UMFST Tîrgu Mureş

Background: The aim of this study is to underline the importance of urodynamic investigations in the proper management of lower urinary tract dysfunctions in diabetes. **Material and methods:** We performed a retrospective study over a period of 6 years (2013-2018) in the Clinic of Urology from Tg. Mureş and we included 68 patients presenting LUTS associated with type I diabetes (4 patients), type II diabetes using insulin (17 patients) and type II diabetes using oral medication (47 patients). **Results:** The mean age of the patients was 63,85(+/-12,14 SD). In majority of the cases the patients were diagnosed with diabetes for more than 5 years (in 45 cases). The mean value of glycaemia was 128,52 mg/dl (+/-43,46 SD). The post-void residual urine was absent in 25 cases, between 50-100 ml in 26 cases and more than 100 ml in 17 cases, with a mean value of 91,02 ml (+/-111,07 SD). In majority of the cases the Qmax value was low, having a mean of 8,14 ml/s (+/- 4,72 SD). The evaluation of pressure-flow study revealed a detrusor underactivity in 44 cases, detrusor overactivity in 10 cases, bladder outlet obstruction (prostate hyperplasia, urethral stenosis, genital prolapse) in 18 cases and normal detrusor function in 8 cases. The value of Bladder Contractility Index (BCI) was less than 100 in 57 cases (57,15+/-21,58) and normal in 11 cases (114,63+/-8,78). There is a statistical correlation between the period of diabetes (more than 5 years) and diagnosis of underactive detrusor, p=0,003. There was no correlation between the value of glycaemia and underactive detrusor, p=0,95. **Conclusions:** In most of the cases we can emphasize that diabetes leads to LUTS, especially detrusor underactivity. The urodynamical diagnosis is very important in patients with diabetes before a surgical treatment for bladder outlet obstruction.

Keywords: urodynamics, uroflowmetry, pressure-flow study, diabetes

LAPAROSCOPIC PYELOPLASTY FOR URETEROPELVIC JUNCTION OBSTRUCTION (CASE REPORT)

Todea-Moga C¹, Martha Orsolya¹, Ghirca Veronica¹, Bălan D¹, Friedl A¹, Popescu C¹, Porav-Hodade D¹

¹Department of Urology, UMFST Tîrgu Mureş

Background: The aim of this paper is to present a case of a young male with left ureteropelvic stenosis who was treated by 3D laparoscopic pyeloplasty (Hynes Anderson Technique). **Material and methods:** We present a case of a 42-year-old patient who was admitted in the Clinic of Urology from Targu Mures accusing intermittent left flank pain. Intravenous urography and Computer Tomography revealed an ureteropelvic junction obstruction with third-degree of hydronephrosis on the left kidney. The global renal function was normal. **Results:** Transperitoneal laparoscopic dismembered Hynes-Anderson pyeloplasty was performed with the insertion of a double "J" ureteral catheter. The operative time was 180 minutes with minimal blood loss. The procedure was carried out successfully with no symptoms at 24 hours after the surgery. The lumbar drain was removed on the second postoperative day and the patient was discharged the next day. Four weeks after the surgery the ureteral stent was removed and the patient was symptoms free. **Conclusions:** In conclusion, we argue for the feasibility of laparoscopic pyeloplasty for ureteropelvic junction obstruction due to the minimal postoperative complications, short hospitalization period and quick postoperative recovery and social reintegration.

Keywords: laparoscopy, surgery, ureteropelvic junction obstruction, hydronephrosis

THE ROLE OF ESWL IN THE TREATMENT OF LITHIASIS IN RENAL DUPLICATION

Brad A¹, Todea-Moga C¹, Ghirca Veronica¹, Vida ÁO¹, Chibeleian C¹, Porav-Hodade D¹, Martha Orsolya¹

¹Department of Urology, UMFST Tîrgu Mureş

Background: Renal duplication represents a congenital anomaly characterized by the presence of two kidneys on the same side, the opposite side being normal or having the same malformation. For these patients the treatment of the lithiasis represents a particular challenge for the urologists. **Material and methods:** We performed a retrospective study of all patients with duplex system treated by ESWL and followed at the Urology Clinic in Târgu Mureş, from 23 of July 1991 to 31 of December 2016. All patients (117) that met the following inclusion criteria: a clear urinary path distal of the location of the stone, a functional kidney without stasis and the stone size ≤ 20 mm who underwent ESWL were included in the study. **Results:** We performed a total of 185 ESWL treatments, with a mean of 1,58 ESWL procedures/patient. 3-month follow-up data were available for 87 patients. From our patients 62 (52,99%) were men and 55 (47,01%) were women. The average age was 48.34 years. The average size of the stone was 14,671 mm. Major complications after ESWL treatment were subcapsular renal hematoma in three (2,56%) cases which only needed supportive care and observation, acute pyelonephritis in one (0,85%) case, treated with appropriate antibiotics, hematuria with vesical globe in three (2,56%) cases which needed catheterisation and irrigation with a three way catheter, . Stone free at 3 months was 97,31%. **Conclusions:** We consider that ESWL is the treatment of choice for stones in reno-ureteral duplication for its non-invasivity, repetability and minimal trauma to the kidney parenchyma.

Keywords: ESWL, renal duplication, lithiasis, stone-free

INCIDENCE OF TESTOSTERONE DEFICIENCY IN AN OUTPATIENT COHORT

Tataru OS¹, Vartolomei Liliana², Sin Anca³, Martha Orsolya¹, Vartolomei MD³

¹Department of Urology, UMFST Tîrgu Mureş

²I.O.S.U.D George Emil Palade UMFST from Targu Mures, UMFST Tîrgu Mureş

³Department of Cell Biology, UMFST Tîrgu Mureş

Background: Testosterone deficiency syndrome is linked to late-onset hypogonadism and has clinical and biological implications in men and correlates with age. The incidence of biological testosterone deficiency ranged from 2.1 to 5.7%, in men aged 40-79 years in western countries. **Material and methods:** We have enrolled 73 consecutive patients, in our outpatient clinic, from

January to November 2019. Patients clinical and biochemical characteristic were analyzed and consent and ethical approval was obtained before screening. We aimed to establish the incidence of male hypogonadism in middle aged men, biological testosterone deficiency (total testosterone <3ng/ml), correlated with one or more symptoms (decreased libido, erectile dysfunction, difficulty sleeping, fatigue and loss of muscle mass), diabetes, metabolic syndrome and treated in accordance to the guidelines. **Results:** The mean age of the patients was 59.4 years (range 33-71). 58 (79.4%) were males from urban environment and 15 (20.6%) from rural setting. The incidence of biochemical hypogonadism was found in 24 (32.8%) patients. Only 12 (16.4%) patients met the criteria for testosterone replacement therapy (total testosterone median 2.11 ng/ml (1.49-2.89) plus one or more symptoms and received medication. From this population 12 (16.4%) patients had testosterone deficiency (total testosterone median 2.665 ng/ml (2.01-2.91), without symptoms, and treatment was not started. Diabetes was identified in 10 (13.7 %) cases, and symptomatic testosterone deficiency was diagnosed and treated in 2 diabetic (2.7 %) patients. Metabolic syndrome has been identified in 12 (16.4%) patients and only 2 (2.7 %) patients were with symptomatic male hypogonadism and received treatment. **Conclusions:** There was a high incidence of testosterone deficiency in the study population, It was linked to diabetes and metabolic syndrome, but also in patients with no associated risk factors. **Acknowledgement:** This study was supported by an internal grant financed by George Emil Palade University of Medicine, Pharmacy, Sciences and Technology from Târgu Mureș. Grant no. 615/10/17.01.2019

Keywords: testosterone deficiency, male hypogonadism, diabetes, metabolic syndrome

RISK FACTORS AND ITS PREDICTIVE VALUE IN PROSTATE CANCER DIAGNOSIS AT PROSTATE BIOPSY

Vida ÁO¹, Bălan D¹, Brad A¹, Ghirca Veronica¹, Porav-Hodade D¹, Todea-Moga C¹, Martha Orsolya¹

¹Department of Urology, UMFST Tîrgu Mureș

Background: Prostate cancer (PCa) is the most frequent diagnosed urological malignancy of the man above 50 year. Identifying risk factors is of utmost of importance. **Material and methods:** This prospective study evaluates data of 102 patients, with prostate biopsy for PCa suspicion. They complete a self-designed questionnaire, about the most important known risk factors in PCa development, and others like diet, BMI, smoking, associate diseases. **Results:** The average age of our patients was 69.82 years. The statistical evaluation of the age and levels of tPSA we observed a weak correlation ($r=0.24$), but a statistically significant difference ($p = 0.02$) between this two constants. The mean value of tPSA was 63.1 ng/ml. The efficiency of the diagnosis of PCa was 48.03% ($n = 49$), with average value of tPSA of 30.50 ng/ml. Among patients with confirmed PCa 17 (16.66%) patients had a positive family history for PCa. According to the study, we found that 10 (9.8%) of the 102 (100%) patients had obesity, with BMI greater than 30 kg/m². In this group we identified PCa in 9 (90%) cases. We can't identify a statistical significant correlation between smoking and PCa ($p=0.43$) **Conclusions:** The identification of risk factors and an early diagnosis can facilitate curative treatment in PCa. Patients aged over 40 or 50 years, and positive familial history for PCa we recommend early screening. Diet rich in saturated fats, metabolic syndrome (BMI greater than 30 kg/m², dyslipidemia, hypertension) can facilitate the appearance of PCa.

Keywords: prostate, prostate cancer, prostate biopsy

POSTERS

NOVELTIES IN THE SURGICAL TREATMENT OF COLON CANCER

Bara T Jr¹, Scurtu Alexandra¹, Gurzu Simona², Jung I², Banias Laura², Bara T¹, Fulop Zs¹

¹Department of Surgery II, UMFST Tîrgu Mureş

²Department of Pathology, UMFST Tîrgu Mureş

Background: Colon cancer continues to be a real public health issue despite recent progressions. By introducing the total mesocolon excision technique with central vascular ligation, the postoperative results have improved. The complete excision of the mesocolon ensures the integrity of an embryological envelope around the mesocolon, due to the dissection between the mesofascial plane and the retroperitoneal fascia. Central ligation of the vessels makes it possible to harvest a maximum number of lymph nodes, thus improving the survival rate. **Material and methods:** In the treatment of colon cancer the total mesocolon excision technique with central vascular ligation was introduced in our clinic in October 2017. We analyzed the cases of colon cancer which underwent surgery using the novel technique over a period of two years. We compared the results with those obtained after using the conventional surgical technique, based on the number of lymph nodes removed and the integrity of the visceral fascia of the mesocolon. **Results:** During the study period 56 cases of colon cancer were operated, from which 45 cases presented right colon cancer and 11 cases left colon cancer. Colectomy with total mesocolon excision and central vascular ligation was performed in 31 cases, while in 25 cases conventional colectomies were performed. In cases of total mesocolic excision, the visceral fascia remained intact, and the number of harvested lymph nodes was significantly higher than in the conventional cases, 1003 lymph nodes versus 338. **Conclusions:** Total mesocolon excision represents the standard surgical technique in radical surgery regarding colon cancer. This technique allows for more accurate staging and improves the long-term results. The total number of harvested lymph nodes following the novel technique is significantly higher than in case of classic surgery.

Keywords: colon cancer, total mesocolon excision, central vascular ligation, lymph nodes

THE EFFECTS OF MANUAL SUBGINGIVAL SCALING ON TOOTH ROOT SURFACE

Tohati A¹, Bechir Farah¹

¹Department of Preventive, Community Dentistry and Oral Health, UMFST Tîrgu Mureş

Background: The purpose of this study was to evaluate the efficiency of subgingival calculus removal and root planing. **Material and methods:** In order to carry out the present study, a number of 50 teeth were selected, 30 monoroot and 20 plurirroot belonging to patients with various forms of periodontal disease. The teeth included in this study had indication to extract them after performing subgingival scaling. Subgingival scaling and root planing were performed with the help of Barnhardt and Columbia McCall universal curettes and Gracey curettes. After extraction, the teeth were disinfected, examined and photographed. **Results:** 32 of the teeth subjected to subgingival scaling and then extracted, that represent 64%, had remaining subgingival calculus on one or more root surfaces. A total of 18 of the 30 monoroot teeth included in the study, respectively 60%, had outstanding subgingival calculus deposits. Of the 20 plurirroot teeth subjected to subgingival scaling, we visualized remnants of calculus deposits in 14 of them, representing a percentage of 70%. In the assessment of remaining subgingival calculus on the examined radicular surfaces, 38% of the surfaces presented calculus residues, as follows: 13.1% mesial surfaces, 31.7% distal surfaces, vestibular surfaces representing 26.3% and oral surfaces 28.9%. Of the examined radicular surfaces belonging to the studied monoroot teeth, 28.3% had remaining subgingival tartar deposits, and 52.2% of the radicular surfaces of the plurirroot teeth were detected with remaining calculus. **Conclusions:** Plurirroot teeth have a higher incidence of calculus deposits remaining after scaling and root planing compared to the monoroot ones. The efficiency of subgingival scaling is better on the mesial surfaces at both the monoroot and the plurirroot teeth. The complete removal of the subgingival dental calculus is not possible by non-surgical methods, but it is a mandatory step in the initial phase of the treatment of chronic marginal parodontopathies.

Keywords: monoroot, plurirroot, subgingival scaling, calculus deposit, root surface

HOARDING IN MILD DEMENTIA. CASE PRESENTATION

Buicu Elena Gabriela¹, Turliuc S², Gabos Grecu Marieta¹

¹Department of Psychiatry, UMFST Tîrgu Mureş

²Department of Psychiatry, UMF Gr. T. Popa Iaşi

Background: According DSM IV TR, hoarding disorder is characterized by excessive collecting of items that are not needed or for which there is no available space and coexist distress associated with discarding them. The term, dementia, refers to a brain disorder characterized by memory disturbance, impaired judgment, personality change with insidious onset and gradual deterioration. **Material and methods:** We describe the characteristic of a case of mild dementia, a 65 years old woman, without psychiatric background. We studied her clinical status, the cognitive function test, hoarding behavior that have reported: onset, duration, predominant emotion, satisfaction, embarrassed with semistructured hoarding questionnaire which was developed to include items. Also the therapeutic strategies are presented. **Results:** We analyse the symptoms which have brought the patient into our service: accumulation of a large number of possessions: plastic pet, plastic bags, newspapers, bits of wood, food, soap. These are accompanied with significant distress caused when the family was interrupted this. We discussed outcomes in this case. **Conclusions:** Hoarding behaviour is not a common symptom in dementia. Detection and treatment this symptom is crucial strategy in order to have a favorable evolution and to reduce the distress of caregivers.

Keywords: dementia, hoarding, behaviour

ISCHEMIC STROKE IN PATIENTS WITH ACTIVE CANCER

Moţăţianu Anca¹, Bajko Z¹, Maier Smaranda¹, Bărcuţean Laura¹, Bălaşa Rodica¹

¹Department of Neurology, UMFST Tîrgu Mureş

Background: The risk of acute ischemic stroke (AIS) is increased in cancer patient, due to various direct or indirect effects of the underlying malignancy, such as procoagulation state. **Material and methods:** The follow study is a retrospective review of all AIS from the Stroke Registry of Neurology 1 Clinic of Targu Mures Emergency Clinical County Hospital, from January 2009 to September 2019. The stroke etiology was assessed using Trial of Org 10172 in Acute Stroke Treatment criteria. We assessed the patients based on sociodemographic and clinical data, such as age, gender, vascular risk factor, site of cancer, presence of metastasis and type of cancer treatment. **Results:** 6800 patients with stroke were admitted in our clinic, from which we identified 249 (3.64%) patients with AIS and different type of active cancer. The mean age was 71.4±10 years (70.9±9.9 for men, 71.3±10.5 for women). The etiologies are as follows: 29% cryptogenic, followed by large vessel atherosclerosis (28%) and cardiac embolism (24%). 16.8% from patients were diagnosed with cancer during stroke hospitalization. Lung cancer was the most common primary tumor (20%), followed by prostate cancer and colorectal cancer (each 9.2%). Traditional cardiovascular risk factors were arterial hypertension (58.3%), diabetes mellitus (19.2%) and atrial fibrillation (24.5%). **Conclusions:** A systemic cancer work-up should be considered for patients with stroke of unknown etiology and the association between cancer and AIS should be investigated even in the presence of traditional cardiovascular risk factors.

Keywords: POSTER, ISCHEMIC STROKE, CANCER, CARDIOVASCULAR RISK FACTOR, CRYPTOGENIC STROKE

THE IMPORTANCE OF ABDOMINAL ULTRASOUND IN HYPERTENSION- CASE REPORT

Magdas Annamaria¹, Balan D², Tusa Anna-Boroka¹, Szasz Zsuzsanna³

¹Department of Internal Medicine IV, UMFST Tîrgu Mureş

²Department of Urology, UMFST Tîrgu Mureş

³Department of Internal Medicine I, UMFST Tîrgu Mureş

Background: The prevalence of resistant hypertension (HTN) varies between 20-35%. To diagnose "true" resistant HTN comprehensive evaluation is needed. Previous studies report an association between hypertension, obesity, smoking and kidney cancer. Most of the renal masses are discovered incidentally. **Material and methods:** We present the case of a 65-year-old male

patient admitted to County Clinical Hospital-Department for internal medicine IV complaining of elevated blood pressure values (BP) 230/120 mmHg, headache, pain in the right lumbar region. Medical history was positive for lower extremity artery disease, hypertension, he was a former smoker. He presented an episode of hypertension unresponsive to usual hypertension medication. To evaluate a possible cause of secondary hypertension, abdominal ultrasound was performed which described an inhomogeneous mass behind the right kidney with long ax of 110 mm, further investigations were necessary to elucidate the etiology. **Results:** The abdominal CT scan described an exophytic, solid, iodophilic mass of the right kidney with posterior extension which occupied the entire renal space and progressed towards the renal sinus where realized a compression on the renal artery. Serum creatinine was 0.83 mg/dl, hemoglobin 14.2 g/dl, white blood cells 11200 /mmc, urine sample in normal range. After titrating hypertensive medication blood pressure control was achieved, the patient was referred to urology department for nephrectomy. **Conclusions:** An underlying cause for true resistant hypertension has to be clarified. Smoking and hypertension are risk factors for kidney cancer. Abdominal ultrasound is an inexpensive first line investigation for screening of patients for hypertensive renal disease as well as for secondary causes of HTN and it has to be performed at least once a year.

Keywords: hypertension, ultrasound, kidney cancer

ORAL REHABILITATION OF GERIATRIC PATIENTS. A CASE PRESENTATION

Ormenisan Alina¹, Bereczki-Temistocle Despina Luciana¹, Cosarca Adina¹, Pazitor Andreea¹

¹Department of Oral and Maxillofacial Surgery, UMFST Tîrgu Mureş

Background: Oral rehabilitation of geriatric patients still represents a challenge because of the complex approach that this category requires. The treatment plan has to take into consideration 3 major aspects: accentuated bone resorption due to the physiological aging process which directly affects the stability of prosthetics; the psychological impact of tooth loss and the difficulty accepting a mobile prosthesis; the general conditions of an elderly person. The varied possibilities of therapy (through special systems based on endo-bone implants) of the clinical forms of total edentation, increase the comfort of the patients, contributing to the restoration of the dental-maxillary functions. **Material and methods:** We present the case of an 81-year-old female patient admitted in the Oral and Maxillofacial Clinic of Targu Mures presenting masticatory, phonetic and aesthetic impairment due to an improper mandibular field and an unsuitable prosthesis. The patient, in this case, is not diagnosed with any general conditions and does not take any medication. The mandibular bone presents important vertical resorption but an acceptable width. The main concern regards the anterior inadequate vestibule, due to the high insertions of the geniohyoid muscle, which reaches the bone crest. This prosthetic field is unfavorable for classic restoration and needs complex surgical treatment. **Results:** The treatment plan requires two important surgical procedures: insertion of two dental implants in the anterior mandible and pre-prosthetic surgery, in order to relocate the muscular insertions and create a proper depth of the vestibule. Clinical follow-ups show a considerable deepening of the vestibule with minimal scarring and a good stabilization of the implants. After the complete healing of the soft tissue and osseointegration (4-6 months) of the implants, a ridge bar stabilization will be used to obtain a stable prosthesis. **Conclusions:** Oral rehabilitation among elderly patients needs a complex surgical and medical approach necessary to assure the integration/reintegration into society.

Keywords: prosthesis, surgical, oral, elderly

AN INDOLENT LYMPHOPROLIFERATION IN YOUNG ADULTS WITH HIGH PROLIFERATION INDEX: WHAT IS YOUR DIAGNOSIS?

Horváth Emőke¹, Szodorai Rita¹, Gherman Denisa¹, Gábos Sz¹, Bara T²

¹Department of Pathology, UMFST Tîrgu Mureş

²Department of Surgery II, UMFST Tîrgu Mureş

Background: Pediatric-type follicular lymphoma (PTFL) is a characteristic variant of follicular lymphoma (FL) described in children with excellent prognosis. The current case provides an opportunity to discuss some of the important clinical, morphological, molecular aspects and pitfalls in the pathological diagnosis of atypical lymphoid proliferation with follicular pattern. **Material and methods:** We present a case of a 20-year-old woman with an unique enlarged right cervical lymph node with maximum 2 cm diameter. No other abnormalities were found after physical examination. A lymph node biopsy was performed and

diagnosis of follicular hyperplasia was made. After two months the patient developed a new enlarged lymph node in the same site, removed surgically and examined histologically. **Results:** The architecture of the second lymph node is partially effaced by large geographic, follicular structures lacking mantle zone, with back to back configuration, with monotonous cellular composition and prominent starry sky pattern. The aberrant follicles are composed of lymphocytes expressing B-cell associated antigens and the germinal center markers. Bcl-2 and MUM1 stains are negative. The high proliferative rate outlines the serpiginous pattern. IgD shows absence of mantle cuffs around most of the follicles. This case address the borderline between florid follicular hyperplasia and PTFL. **Conclusions:** Differentiation between reactive and neoplastic lymphoid follicles of PTFL is often problematic. Morphology is important especially in PTFL with partial involvement, that lack of the t(14; 18) and is most bcl-2 protein negative. We proposed this case for FISH and PCR studies. Interesting features of this case are represented by three important aspects: age of patient and possibility of partial involvement of lymph node by B-cell proliferation with alarming histological features.

Keywords: florid follicular hyperplasia, pediatric-type follicular lymphoma, follicular lymphoma

A RARE CASE OF PARATESTICULAR LIPOSARCOMA

Tinca Andreea¹, Sincu Mihaela¹, Turcu M¹, Bartha R¹, Cotoi OS¹, Turdean S¹

¹Department of Pathology, UMFST Tîrgu Mureş

Background: Liposarcoma is a rare mesenchymal tumor that arises from the lipoblasts and has an unknown cause of appearance. Histologically, the major types of liposarcoma according to the latest morphological features are: well differentiated liposarcoma, dedifferentiated liposarcoma, myxoid-round cell liposarcoma and pleomorphic liposarcoma. Pleomorphic liposarcoma is a lesion that appears in less than 10% of the total of lipomatous tumors and it is considered to have the highest malignant grade with significant risks of metastasis, recurrence and invasion. **Material and methods:** We intend to present the case of a 66 year old male patient with the clinical diagnosis of orchitis-epididymitis that undergo surgery. Orchiectomy was performed **Results:** Microscopically, the lesion described above consisted of a proliferation of lipoblasts with bizarre, hyperchromatic nuclei, with marked pleomorphism. There were also numerous multinucleated giant cells along with fusiform and round cells. Myxoid areas with thin, branched vessels were also described. Necrosis was absent and the number of mitosis, mostly atypical, was 7/10 HPF. The tumoral process infiltrated tunica albuginea but the testicular parenchyma was not involved. The surgical resection limit was negative. The immunohistochemical stains showed positivity for protein S100, CD34 and Ki67 and was negative for CD68. **Conclusions:** liposarcoma is a neoplasm that appears usually in sites like retroperitoneum and lower extremities. The pleomorphic liposarcoma is an extremely rare type with a high grade of malignancy and paratesticular location is exceptionally. There are only around 200 cases described in the literature at the moment.

Keywords: liposarcoma, pleomorphic, paratesticular, rare, neoplasm

IMPACT OF PONDERAL EXCESS ON THE LIPID PROFILE IN PATIENTS WITH TYPE 2 DIABETE

Răuță Alina Elena¹, Tilinca Mariana Cornelia², Trâmbițaș Alina Dia³

¹Department of Internal Medicine I, UMFST Tîrgu Mureş

²Department of Cell Biology, UMFST Tîrgu Mureş

³Department of Informatics, UMFST Tîrgu Mureş

Background: Carrying out the lipid profile in patients with type 2 diabetes is essential in the metabolic evaluation, taking into account the cardiovascular risk factors, in the context of escalating the prevalence of diabetes and obesity following the current lifestyle. The purpose of the paper is to highlight how the lipid profile is influenced in type 2 diabetic patients who associate excess weight and the impact that the lipid profile has on their health status. **Material and methods:** We conducted a retrospective, observational study on 294 patients with type 2 diabetes, hospitalized between 01.06.2018 - 01.06.2019 in the Diabetes, Nutrition and Metabolic Diseases Department within the Tîrgu Mureş SCJU, where they followed the lipid parameters and the associated pathology according to the BMI values. **Results:** According to the BMI, 56.12% (165) of the patients were obese, 21.77% (64) overweight, and 22.11% (65) normal weight. The overall distribution of cases by lipid profile showed that 22.79% of patients had normal lipid profile, 23.13% hypercholesterolemia, 26.87% hypertriglyceridemia, and 27.71% mixed dyslipidemia. In the group of

normal-weight patients, most had normal lipid profile, whereas in the group of obese patients, hypertriglyceridemia and mixed dyslipidemia predominated. 54.08% of the patients had hepatic steatosis, 81.97% hypertension, and the metabolic syndrome seems to have affected 74.29% of women and 78.99% of men. Cardiovascular events affected the studied patients: 9.68% angina pectoris, 16.33% acute myocardial infarction, 6.12% carotid artery occlusion. Only 35.37% of the patients did not have cardiovascular events, the majority normoponderal, with duration of diabetes below 5 years, with adequate glycemic control. **Conclusions:** Ponderal excess is an additional risk factor that amplifies the changes induced by type 2 diabetes on the lipid profile. An increase number of complications is observed proportional with the reduction of the quality of life in the overweight diabetic patients in comparison with normal-weight diabetics.

Keywords: Lipid profile, Diabetes, Cardiovascular risk, Obesity, Dyslipidemia

EVALUATION OF STRESS LEVEL AND COPING STRATEGIES IN HEALTHCARE PROFESSIONALS

Vartolomei Liliana¹, Stanciu Camelia², Vartolomei MD³, Sin Anca³

¹IOSUD UMFST Targu Mures, UMFST Tîrgu Mureş

²Psychology, Dimitrie Cantemir University from Targu Mures

³Department of Cell Biology, UMFST Tîrgu Mureş

Background: This study investigated the level of perception of stress among health professionals and coping strategies among the same populations. We hypothesized that doctors presents a larger degree of stress compared to nurses and that the level of stress is influenced by age, sex, professional grade and years of profession. **Material and methods:** The perceived stress questionnaire and COPE questionnaire were self-administrated to 51 medical staff (nurses, resident doctors, specialists and primary physicians/M.D.) from hospitals within Târgu Mureş. **Results:** The stress perception score varied between 46 and 117. The median score was 60 (interquartile 54-71). 30-60 low stress score had 25 subjects 49%; moderate stress score 60-90 had 24 subjects (47%); high stress score 90-120 had 2 subjects (4%).The coping scoring ranged from 99 to 185. The median score was 146 (interquartile 134-154). We found a statistically significant difference in overall scores of stress with a higher mean score among men 68.14 SD (standard deviation) 16.1 vs. 57.8 SD 7.8 among women ($p = 0.003$). There was a statistically significant difference between the overall scores of the stress perception scale according to the years in profession, so subjects with less than 10 years reported higher scores than those with experience in the profession, mean score of 70 versus 60 for the other two categories ($p < 0.05$). Also there was a statistically significant difference in overall stress scores with a higher average mean score among doctors 67.78 SD 13.99 versus 58.26 SD 12.13 among nurses ($p = 0.006$). When analyzing by coping categories we observed a statistically significant difference in mental passivity score, a lower score among doctors, $p = 0.01$. **Conclusions:** In this study, there were significant differences between doctors and nurses regarding the perception of occupational stress. Furthermore, for coping strategies were reported different approaches. Multi-center studies should validate our findings.

Keywords: healthcare professional, stress, coping strategies

RELATIONSHIP BETWEEN POSTURE AND MANDIBULAR POSITION IN ADOLESCENTS

Markovics Emese¹, Imre M²

¹Department of Prosthetic Dentistry and Oral Rehabilitation, UMFST Tîrgu Mureş

²Department of Research Methodology, UMFST Tîrgu Mureş

Background: The mandibular movements are closely related to the position of the spinal cord, due to the muscles that control their kinematics. Incorrect posture influences intermaxillary relations, occlusion and free movements of the lower jaw. **Material and methods:** A number of 171 students were examined, aged between 10-18 year, with a gender distribution of 55% female, 45% male. A preliminary survey was conducted, to detect the children with spine curvature disorders. They formed the study group, the rest of the children remained in the control group. Afterwards their dental status was examined, the Angle's classification, the position of the interincisal lines, the deviation and deflexion of the mandible during mouth opening and the association of the temporomandibular symptoms. As a statistical indicator, we used Relative Risk (RR) that shows if the adolescents with vertebral column disorder have an increased risk of developing dental abnormalities. **Results:** Calculating RR gives the following results: chances of children with spinal cord deformity to develop an interincisal line deviation is 0.97 bigger than the control group; the

appearance of a Class II or III malocclusion is 1.00 bigger and the asymmetry during the movements takes place 1,33 times more often than in case of students without vertebral deformities. **Conclusions:** Although the connection between weak posture and malocclusion are not yet apparent at such an early stage in life, there are warning signs that merit interdisciplinary attention

Keywords: posture, interincisal line, occlusion, mandibular movements

MINIATURIZED ELECTROMAGNETIC DEVICE ABUTMENT IMPROVES BONE HEALING AROUND DENTAL IMPLANTS: A CASE REPORT

Vlasa Alexandru¹, Lazăr Luminița¹, Bukhari Csilla¹, Buka Imola¹

¹Periodontology and Oral and Dental Diagnosis, UMFST Tîrgu Mureș

Background: Magdent MED, the newest and revolutionary technology stimulates bone formation around dental implants using Pulse Electromagnetic Fields. Using this type of technology, also used as commonly method in orthopaedics, Magdent MED stimulates and increases formation of osteoblast, heading to faster bone regeneration with higher density. **Material and methods:** This case report was conducted with Magdent MED which contains a miniaturized electromagnetic device that looks like a healing cap that is fitted into the dental implant after the insertion into the oral cavity. The patient investigated was suffering from type I diabetes which is a indication of usage of this device. The study consisted of insertion of 4 dental implants from which 2 had inserted the MED device . The postop clinical and radiographic examination was done at 30 days after the insertion of the dental implants. **Results:** Results show that Miniaturized electromagnetic device abutment may have a positive effect on dental implants in terms of faster healing time compared with the conventional dental implants. Radiographic examination showed no significant difference regarding this device and conventional implants. **Conclusions:** In patients with general disorders that affect the oral healing process pulse electromagnetic devices may be used to stimulate faster bone healing.

Keywords: pulse electromagnetic device, dental implants, type I diabetes

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**Scientific Session of University Academic Staff
Science and Letters**

LITERATURE AND COMMUNICATION

PAVEL DAN AND THE FANTASTIC IMAGERY

Boldea I¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: In Pavel Dan's prose, the literary geography of the Transylvanian Field is drawn in a realist and at the same time symbolic manner, since the writer uses, above all, the aesthetic tools of realism to objectively represent people, places and events which are loaded with the echoes of tradition. A special place in the epic space is conferred to the fantastic feature, with various representations and expositions, where the allure of complex characters is shown; these are original characters marked by a mythical spread and by ambiguity.

Keywords: prose, narrative discourse, fantastic, tradition, myth

THE FUNERARY RITE AS A THEATRE PLAY – A CONTEMPORARY VALORISATION WITH MATEI VIȘNIEC'S FICTION

Orian Georgeta¹

¹Department of Philology, Faculty of History and Philology, „1 Decembrie 1918” University of Alba Iulia

Abstract: The paper analyses the modality in which the Romanian writer Matei Vișniec valorises elements of the funerary rite in a novel characterised by fragmentarity (Iubirile de tip pantof, iubirile de tip umbrelă /*Shoe type Loves, Umbrella type Loves*). Having a strong metatextual, programmatic subtext, the novel contains, amongst other things, also a plea for the art of theatre, the roots of which the writer-narrator-character believes to have found in his childhood, in his native village in Romania, when he witnessed a traditional funeral.

Keywords: funerary rite, traditional mentality, the art of theatre, fragmentarity

MYTHICAL MAPS IN ROMANIAN FICTION

Bako Alina Ioana¹

¹Department of Romance Studies, Faculty of Letters and Arts, Lucian Blaga University of Sibiu

Abstract: Romanian prose of the 20th century had a paradoxical status, proposing the literary works that have exposed two fundamental directions in line with social development. Mythical mapping that we want to use it as a tool of analysis is based on two components: identification of imaginary spaces created in Romanian prose, based on myth and the creation of a symbolic maps-as an alternate territory.

Keywords: imaginary, maps, myth, territory, space

CREATIVE WRITING STUDIES AND THE DIGITAL HUMANITIES. AN INTRODUCTORY APPROACH

Buda DM¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The paper attempts to describe the rise of Creative Writing Studies in simultaneity with that of the Digital Humanities and Composition/Rhetoric. This introductory approach starts from the fact that writing in the 21st century is inevitably bound to technology, focusing on the common area shared by the two fields of research and their potential of creating new knowledge and, eventually, a new transdisciplinary field of knowledge, essential for academic study.

Keywords: creative writing, digital humanities, composition, rhetoric, transdisciplinarity

SMART COMMUNITIES

Hosu I¹, Stoica MS¹

¹Department of Communication, Public Relations and Advertising, Faculty of Political, Administrative and Communication Sciences, Babes-Bolyai University of Cluj-Napoca

Abstract: The current paper seeks to understand the concept of smart communities by looking at actors who play a significant role in constructing the concept, in specific cases around Europe. As communication is an essential aspect of any community, our research will pay special attention to models of local democracy, in an attempt to identify the relation between decision-makers and citizens who engage in the larger process of innovation. Research in this specific field becomes necessary to day, at a time when forms of participation in the political debate and the development of public policies are undergoing major changes. The reluctance and disappointment towards the political act build the need to identify new methods of engaging the citizen in the act of local governance. Social innovation is relevant in this sense as it blurs the boundaries between private, public and societal actors, and the interaction between them brings new valences precisely because they reinterpret the roles and relations between key actors. Therefore, social innovation involves addressing new governance practices, by strengthening accountability at the local level and understanding the mutual benefits that arise from these collaborations. In this sense, the present research seeks to address the issue of identity of the parties involved in the concept of smart communities.

Keywords: smart communities, innovation, communication, democracy, decision-making

CHALLENGES RELATED TO INFORMATION AND COMMUNICATION SECTOR IN ROMANIA AND IN EUROPEAN COUNTRIES

Georgescu Maria-Ana¹

¹SL2 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The concept of the Digital Age is conveyed and explained by Harris and Nelson, who believe that we live a revolution comparable to the Industrial Revolution. They call this one the

Information Revolution. In this context, our work focuses on the Information and Communication Sector in a socio-economic approach. We use the secondary analysis of reliable international data and official national statistics on the recent evolution of Information and Communication sector, making an analysis of quantitative data and also a comparison between European countries on this activity. Being a field in the forefront, we highlighted the place of the ICT sector in the national economies, its contribution to GDP, the population employed in this sector and the gender structure of the employees, the average number of employees.

We want to raise awareness that we have the privilege of being contemporaries of a confrontation of values, attitudes and ways of assuming communication between the man of the printed formats, living in the Gutenberg Galaxy and the man of the electronic formats, living in the Internet Galaxy. The paper addresses in an interdisciplinary way different aspects of communication and information as a distinct field of activity and employment at present. Although it does not claim an exhaustive approach, the text calls for reflection, highlighting the importance of communication and transmitting information in the Digital Age.

Keywords: Digital Society, Information and Communication Sector, the electronic man

AMERICANNES IN THE POST-TRUTH ERA. PERSPECTIVES FROM THE NEW YORK TIMES

Hosu Ramona Gabriela¹, Voina Andreea¹

¹Department of Journalism, Faculty of Political, Administrative and Communication Sciences, Babes-Bolyai University of Cluj-Napoca

Abstract: Newly emerging American identities within the current sociopolitical setting are dominating media discourses in the United States. Media representations could, thus, be valuable in delivering the current perspectives on Americanness. This paper tackles the concept of Americanness in Trump's post-truth era, through analyzing the media discourse of The New York Times.

Keywords: Americanness, post-truth, media representations, The New York Times, identity

WHEN WORDS CHANGE THE WORLD. FROM SIMPLE WORDS TO INTERNATIONAL POLITICAL MOVEMENTS

Natea Mihaela Daciana¹

¹SL2 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: In day to day live we use many words to describe our intentions, preoccupations, desires, needs. It so natural, a part of the human evolution and rarely we enquire about the power they carry. When addressing political aspects, words changed the world, they legitimized and delegitimized activities, organizations, leaders. Revolutions, illuminist, rights, religion, terrorism, democracy, are some examples of words that changed the course of history. The article explores the use of the word terrorism and how it evolved in the last decade.

Keywords: international relations, concepts, words, terrorism, diplomacy

MULTIMODALE DISCOURSE. GRAPHIC NOVELS / COMICS

Szekely Eva-Monica¹

¹SL2 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Our intention is to provoke the reading of some books by working with high school teachers, mentors for pedagogical training, in order to discover the reason (acknowledged and/or hidden) Romanian teenagers tend to read moreover translations from world literature rather than Romanian short stories. A special attention will provide two volumes of graphic novels/ comics published by ART Publishing House (*Maus: Un survivant raconte* by Art Spiegelman, Romanian title: *Maus. Povestea unui supravietuitor*, the Holocaust experience of Spiegelman's father, where Nazis are cats, Jews are mice, Poles are pigs, and the Americans, dogs) and *Persepolis, I, II*, by Marjane Satrapi (also in animated version, done together with the artist and director Vincent Paronnaud, which won the Jury Prize at Cannes, and the Cinema for Peace Award for Most Valuable Movie of the Year), a memoir about growing up in revolutionary Iran, casting a peerless look in an almost unknown and hardly accessible way of life. Our queries, which have become working hypotheses, will try to find out if: this motivation is rooted in a trend and in the attraction for graphic novels/comics/ “easy” genres coming from the Anglo-Saxon world, which have recently been promoted even in the new syllabi for Romanian language and literature for primary school and middle school? Is it also a case of a better promotion both online and face to face? Moreover, could it be that these novels work with exciting, living themes for adolescents and young adults, with models of characters animated by feelings and emotions that overwhelm them too, and in which they find themselves more than in the characters of Romanian short story?

Keywords: graphic novels/comics, young adults, multimodale discourse, new syllabus for Romanian language and literature

THE GOLDEN AGE OF THE GUTENBERG GALAXY. BOOKS AND THE PRESS ON THE BOARD: FIGHTING FOR THE FREEDOM OF OPINION

Nistor E¹

¹SL2 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: After Gutenberg's huge discovery – the printer with mobile letters – the printed book became the strongest means of mass communication; thus the religious reform was accomplished, Luther's theses were published in a huge number for that time. The serial publications represent an astonishing phenomenon, especially those from France and England – which had a major contribution to the success of bourgeois revolutions (1642, 1789) and to revolutionize the way of thinking in the public area.

Keywords: Gutenberg, Gazette de France, French Encyclopedia, Daniel Defoe, review

HISTORY AND CIVILIZATION

ELITES IN THE SOUTHEASTERN TRANSYLVANIAN WITH STUDIES AT THE UNIVERSITIES OF CENTRAL AND WESTERN EUROPE

Sigmirean C¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Since the end of the 19th century, the research of the impact of school education and the cultural contacts established by the Romanians with university environments in Europe has emerged as a favourite topic for Romanian historians. Numerous studies have emphasized the contribution of foreign universities in transforming the intellectual field in our historical space, by breaking with the local, quasi-oriental, autarchic cultural environment. In our study, we analyse the presence of Romanian young people from the area of south-eastern Transylvania, also known as "Szeklerland", at Central and West European universities. During the 18th and 19th centuries, more than 80 young people from Szeklerland's former districts, studied at European universities in Vienna, Berlin, Rome, Leipzig, Cluj, and other university centers. However, in the in the south-eastern Transylvanian districts, respectively Ciuc, Odorhei and Trei-Scaune, the Romanians' number was very small, below 10%. Among the young people with university education, a very active elite rose, which was situated at the forefront of the Romanians' cultural and political emancipation movement from the Szeklerland.

Keywords: elites, European universities, south-eastern Transylvania, political struggle

ETHNICITY AND CONFESSION, ACCORDING TO ROMANIAN HISTORIANS, FROM THE INTERWAR PERIOD

Teodor Corina¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The present study aims to analyze the reopening of the controversy between Transylvanian historians, around topics related to the ethnic and confessional identity. The analysis will start from the texts from the interwar period, signed by historians and theologians consecrated at that time, of orthodox orientation (Ioan Lupaş, Silviu Dragomir, Ştefan Meteş, Gheorghe Ciuhandu etc.) and respectively, Greek-Catholic (Zenovie Pâclişanu, Alexandru Lupeanu -Melin, Nicolae Brînzeu, etc.).

Keywords: Romanian historiography, polemics, historical method, historical sources, subjectivity

GENDER AND NATION: A WORK IN PROGRESS

Fodor Georgeta¹, Tătar-Dan Maria¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The present paper highlights the importance and the utility of using gender as an analytical category in historical researches addressing the issues of nation and nation building. The approach, a relatively new one even in the western historiography, draws attention upon the necessity of (re)considering the nation building process from a gender perspective, but at the same time one must take into account the fact that gender identity was deeply influenced by the emergence of modern nations. A work in progress, our paper addresses the following aspects: the manner in which the national discourse of the Romanian intellectuals of late 19th century and the beginning of the 20th one influenced the emergence of modern masculinity and femininity stereotypes; the formative agents and the dissemination channels of these ideals but also their impact upon gender and national identity and the extraordinary adaptability of the identity discourse to the great moments of the nation's history.

Keywords: stereotype, masculinity, femininity, gender identity, nation

<<MEMORIA>> AND <<VIRTUS>>. THE <<IMMORTALITY>> OF THE ROMAN SOLDIER

Fabian I¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Playing a vital part in the life of the Empire, the Roman soldier was not only a part of a huge defense mechanism but, a important social and economic factor. Nevertheless, soldiers lived in a social „bubble” in which not only the personal courage mattered in a time of war but, more than that, the „*memoria*” left by the soldier for the future generations. The Roman „*virtus*” was meant to be commemorated because as Cicero put it „*vita enim mortuorum in memoria est posita vivorum*” Soldiers used various means to commemorate their actions, their virtues, in order to receive *immortalitas*, one of the most frequent being the funerary monument. The aim of the present paper is to give a few examples of how this monument were conceived in order to preserve the soldier's memory and how there were perceived by the Roman society.

Keywords: empire, roman, soldier, commemoration, grave-stones

LANGUAGE AND DISCOURSE ANALYSIS

A BOOMING WORD. THE NOUN CHESTIE 'STUFF' IN CURRENT SPOKEN ROMANIAN LANGUAGE

Chircu A¹

¹Department of Romanian Language and General linguistic, Faculty of Letters, Babes-Bolyai University of Cluj-Napoca

Abstract: In his study, the author will pursue the wide usage of the noun *chestier* 'stuff' in current spoken Romanian language. Actually this interpretative approach represents a further step of an old analysis (Chircu 2013: 188-198), to which he adds new data, excerpted this time from recent corpora of spoken Romanian language (ROVA, CORV, CLRVAN, IV). Thus, the linguist from Cluj succeeded to observe the usage of this word with different roles in various contexts, among which its conclusive and designative values differentiate.

Keywords: noun, current spoken Romanian language, corpus, apposition

NEGATION IN AUREL PANTEA'S POEM: <<A BELLY OF... NO>>

Chiorean Luminița ¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: We recall that the main objective pursued in our project "Symbolic space - cultural identity and poetical communication" consists in receiving cultural identities from the poetic space that offers possible monographic details about the author. In this sense, we propose the analysis of the symbolic spaces offered by the poet to a reader, both being devourers and devoured by bookish spaces. "Negation in AurelPantea's Poem: <<a belly of ... no>>, a return to the poetic body, represents the continuation of the study dedicated to the configuration of a cultural pattern by highlighting the signs of the poetic space. Taking as a reference the negation, metalogism through which the poet proposes the onto-poetics of nothingness that engages biography in a process of poetic creation, we will notice that the negation and negating things, with which the poet comes in contact, of the facts and events, to which the poet is more "reflector" and/ or spectator than actor, has the effect of desacralizing the world. To this imaginary, negation adds a refusal of things to be other than what they are not, so Pantea's poem announces annihilation as a relapse against a recessive reality. Negation is the necessary for another existence, unnamed, not yet assumed.

Keywords: discourse analysis, negation and negating, poetic space, onto-poetics

HOW ROMANIAN LANGUAGE DICTIONARIES WERE WRITTEN IN THE 19TH CENTURY

Aldea Maria¹

¹Department of Romanian Language and General linguistic, Faculty of Letters, Babes-Bolyai University of Cluj-Napoca

Abstract: In my paper I present some lexicographical productions of the 19th century. In doing so, I answer two main questions: Could we call “lexicographers” all those who were involved in drafting and writing dictionaries throughout that period? Which was the reason that led them to engage in such an action?

Keywords: Romanian lexicography, e-lexicography, printed dictionaries, 19th century

THE IMPORTANCE OF GRAMMAR IN TEACHING ROMANIAN AS A FOREIGN LANGUAGE

Rus Laura¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: There is a close relation between grammar and vocabulary, generated by the reality that requires the words to be included in a right context and the context to be organised from a correct grammatical point of view. Because the number of grammar structures is reduced compared to lexical units, we recommend a thorough practice of the primary structures, the morphosyntactic mechanisms, specific for Romanian language.

Keywords: grammar, distributional analysis, descriptive linguistics, grammar category, grammatical terminology

GOOGLE SHEETS FOR LINGUISTIC RESEARCH

Lakó C¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Google Sheets is an authoritative and versatile web-application specifically used by companies. However, in this paper, we will consider the possibility of using the features of this tool in the field of linguistics by extracting data from various text types.

Keywords: applied linguistics, spread sheets, linguistic research

ON FRACTURES AND OTHER HAUNTING TRAUMAS OF TODAY'S SOCIETY FROM A LINGUISTIC AND IDEOLOGICAL STANDPOINT

Pop Andreea¹

SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Europe, as it is, as well as the Western world in general, suffer from wounds of the past not yet overcome. The 20th century alone, with its Second World War, AIDS, different movements for equality, terrorism and antiterrorism wars, and so on, still shakes and shapes the world we live in ways that are yet to be understood. Collective memory itself is broken to pieces along fracture lines that have to do with past. Our paper aims at showing that the echoing nature of historical trauma, that tends to reverberate throughout ages, is connected to both language as main mnemonic depository and ideological constructs that inherit of it.

Keywords: culture, memory, multilingualism, historical trauma, identity discourse

PAUL CELAN'S ROMANIAN POEMS

Tegla Emanuela¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Written during his stay in Bucharest in 1945-1947 and preserved by his friend Petre Solomon, Paul Celan's Romanian poems have been often overlooked by the Western exegesis of his work. The present essay will seek to identify elements in this poems which will later pervade the poet's entire *oeuvre*, as well as an interpretation of them that will bring into relief the exceptional poetic gift Celan shows even when writing poetry in Romanian.

Keywords: Paul Celan, Twentieth-century poetry, poem, poetic space

DELIBERATE METAPHOR THEORY – THE COMMUNICATIVE TREND IN METAPHOR RESEARCH

Dălălău Daniela¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The paper presents the communicative shift in metaphor research. For many years, the Conceptual Metaphor Theory (CMT) dominated metaphor research and highlighted the cognitive dimension of metaphor. However, the communicative dimension has aroused considerable interest in recent years and this has led to the emergence of a new theoretical framework, the Deliberate Metaphor Theory (DMT).

Keywords: Conceptual Metaphor Theory (CMT), conceptual metaphor, Deliberate Metaphor Theory (DMT), deliberate metaphor

PHONOLOGICAL ERRORS PRODUCED BY A NON-FLUENT APHASIC PATIENT. CASE STUDY

Kutasi Réka ¹

¹UMFST G.E. Palade Tg. Mures

Abstract: Defined as a language impairment aphasia affects people's ability to write, speak, read or sometimes to understand what others tell them. People with Broca's (non-fluent) aphasia speak slower, use fewer words and have the tendency to produce phonological errors when expressing ideas. Though phonological disorder in aphasia has received great attention in recent years, there are few descriptions of phonological errors produced by Romanian aphasic patients. The aim of the present paper is to make a thorough investigation about the phonological errors produced by a Romanian non-fluent aphasic patient.

Keywords: non-fluent aphasia, language disorder, Romanian patient, phonological error

LITERATURE, TRANSLATION AND ENGLISH FOR SPECIFIC PURPOSES (ESP)

CULTURAL ANTHROPOLOGY IN AMERICAN FILMS

Ștefanovici Smaranda¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Sports can reflect both cultural differences and cultural connections between two societies and peoples. While individualism applies to American culture and baseball, implicitly, groupism is a feature of Japanese culture which applies to the baseball game, as well. The film *Mr. Baseball* however, is not a baseball movie. It is about real Japan, the clash of cultures, growing mature at an old age, contrasting mentalities, both from a sports as well as personal relationships perspective.

Keywords: cultural anthropology, individualism, groupism, contrasting mentalities, bridging the culture gap

WELL-BEING AND ASSOCIATED FACTORS AMONG FEMALE CHARACTERS IN VARIOUS AMERICAN SHORT-STORIES

Lirca Corina Alexandrina¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Well-being is an essential measure that contributes to the evaluation of the health and quality of life of people in general, health having been defined as physical, mental and social well-being. It is our purpose to assess the level of well-being of a number of American short-fiction female characters by taking into account the effect of material and psychosocial conditions and lifestyle factors on their well-being, as well as the impact of gender roles enforced via societal norms.

Keywords: women, well-being, mental health, health humanities, societal norms

SIMULATION AND GAMIFICATION FOR THE TEACHING OF HUMANITIES IN HIGHER EDUCATION

Graziano Alba¹, Sibi Patrizia ¹

¹Università degli Studi della Tuscia, Viterbo, Italy

Abstract: As reported by many recent investigations, much has been achieved in the modernisation and harmonisation of the European Higher Education Area following the Bologna process. Yet, two fundamental principles remain unrealised: 1. students continue to be peripheral to the process of co-construction of knowledge; and 2. the potential for true pedagogical innovation through new technologies remains underexplored. Building on the outcomes of an Erasmus+ Project called “Eco/logical Learning and Simulation Environments in Higher Education” (ELSE), the two authors will explore the possibility of employing simulation and gamification for the teaching/learning of topics and contents in the field of Humanities at university level. After an illustration of the pedagogical principles/approaches inspiring Serious Games, two case studies, representing two diverse types of conceiving and designing a serious game, will be described and commented upon, particularly under the viewpoint of their narrative and linguistic components. Their experimentation will also provide some initial results in terms of impact and stakeholders’ satisfaction.

Keywords: Simulation, gamification, storyboarding, teaching methods innovation, Higher Education

MAKING WRITING COMMUNICATIVE. A RETROSPECTIVE STUDY OF BLOG WRITING IN ESP

Pop Anișoara¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: As all language aspects and skills, writing has a communicative purpose which is why it may prove difficult to approach in the limited ESP class context of directed communication. This ten-year retrospective study of blog writing in ESP will identify challenges in designing communicative writing activities pertaining to relevance, logistics, motivation, personal and psychological factors. I will also reflect on possible strategies for encouraging communicative writing in different ESPs (Business and Tourism English, English for Nutrition, Medical English) and emphasize the importance of approaching writing holistically as a socially-reciprocal, integrated exchange.

Keywords: communicative writing, ESP, Medical English, blog writing

THE YOUTUBENGLISH OF THE ROMANIAN COMPUTER GAMERS (OR HOW ROMANIAN YOUTUBERS ALTER THE LANGUAGE)

Han Bianca¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: This article intends to be a quick insight of the Romanian computer gamers' language, thus focusing upon the manner and extend to which the language is altered by the input of Romanian hipster generation of language users. In order to achieve that purpose, we analyse a number of *YouTube* tutorials on how to play certain computer games or game demonstrations, in which the vloggers or the players (ab)use the language to an extent to which the language would deserve to be referred as *YouTubEnglish*.

Keywords: gaming language, hipster generation, pragmatics

TEACHING BUSINESS ENGLISH: PREDICTING NEW TRENDS BY EXPLORING AN ITALIAN ESP LEARNER CORPUS

Romagnuolo Anna ¹

¹Università degli Studi della Tuscia, Viterbo, Italy

Abstract: The field of learner corpus research emerged in the 90s when a pioneering International Corpus of Learner English, containing argumentative essays written by higher intermediate to advanced ESOL learners, started to be collected. Since then many universities, research centers and individual scholars have set up learner corpora of various languages and sizes to be used to develop corpus-informed dictionaries, to formulate hypotheses on learner behavior by error analysis, to assist language teaching and devise language acquisition remedial activities. Explorations of tagged or annotated learner corpora have mostly focused on specific grammatical categories; limited research is available on learners' pragmatic competence and its development.

The paper will present the preliminary results of the analysis of an ESP Learner Corpus made of 400 Business writing exam tests consisting of letters, faxes, emails and memos written by Italian University students during the final test of an English Business Writing Course. The corpus collection, manually annotated - following a purposefully modified Louvain error tagging taxonomy - for the investigation of pragmatic mistakes, besides grammar errors, allows synchronic and diachronic observations on errors types, students' interlanguage development, cross-cultural communication mistakes and, above all, mistakes due to most students' lack of professional skills and hands-on experience of the business world.

This is the kind of data the article will mostly focus on in order to identify teaching areas that need development in relation to students' learning needs arising from their lack of "extratextual" knowledge, including awareness of cross-cultural differences, business etiquette, customer-oriented attitude and work ethics, which is fundamental to succeed in a globalized business world.

Keywords: Learner Corpus, Error Analysis, Error Tagging, Second Language Acquisition, Pragmatic Competence

THE PROLIFERATION OF BILINGUAL PROGRAMMES IN BUSINESS FACULTIES AROUND SPAIN: APPLYING FOREIGN LANGUAGES TO FOSTER INTERNATIONALIZATION

Urgal Candela Contero ¹

¹University of Cadiz, Spain

Abstract: Internationalization has been a recurrent issue raised within the process of syllabus design, not only in language studies but also in fields of knowledge in which Languages and English for Specific Purposes (ESP) have had a sustained presence. Authors like Kusumastuti (2016) and Kedia et al. (2011) emphasize the trend of implementing internationalizing initiatives in Higher Education (HE), particularly in the business studies on offer. Such internationalization process can take different forms, but one of the most frequent procedures for promoting it in Business Faculties around Spain is through the implementation of Bilingual Programmes. Business Faculties' stakeholders seem to be convinced of the necessity of developing the integration of content and language in Higher Education (ICLHE & CLIL) by offering English-taught courses. The aim of the present paper is to study the case of Spanish Universities and their Business Faculties, analyzing the way in which their internationalization strategy comprises the integration of English as a Foreign Language (FL) in their Business studies. We will then be able to identify the similar features characterizing the Bilingual Programmes in Spanish Business Degrees, understanding it as a way to promote the Internationalization of the curriculum through the authentic use of Foreign Languages.

Keywords: Applied Foreign Languages, Content and Language Integrated Learning (CLIL), English for Specific Purposes (ESP), Bilingual Education, Internationalization

FROM ESP TO CLIL: THEORETICAL INSIGHTS, EXPERIMENTATION AND FUTURE PROSPECTS IN MILITARY LANGUAGE TRAINING

Ciambella F¹

¹Università degli Studi della Tuscia, Viterbo, Italy

Abstract: The principal aim of this article is to present a soft CLIL experimentation at the School for army training sub-officers of Viterbo, Italy. Theoretical considerations will be supported by practical issues, in order to demonstrate that Content and Language Integrated Learning (CLIL) could help language (FL) and non-language teachers (NLS) of military academies 'spare/save' precious time. If during the 48 hours of English lessons at the School for army training sub-officers of Viterbo one could combine the "dual learning" (Coonan, 2014) of language and content, one would avoid a fruitless race against the clock when attempting to teach (useless?) general English notions which are not stimulating for army-training sub-officers, because they simply are not very useful in an environment that is strongly oriented from a professional point of view. Moreover, this mix of content and foreign language seems to help students acquire the specific vocabulary of the subject taught in CLIL more quickly "as a result of a deeper exploration of the meaning of concepts" (Gawlik-Kobylińska&Lewińska, 2014).

Keywords: CLIL, ESP, military English, communicative approach, non-language teachers

TRANSLATION TECHNIQUES IN ENGINEERING

Ban Andreea Romana¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: Engineering is both a productive and a creative field in which translation is broadly used. Technical documents require clear and accurate translations that have to convey the initial meaning of words and structures from one language into another as thoroughly as possible. This article highlights a series of techniques that can improve the translation process, but it also contains an investigation of errors which occur regularly when translating scientific texts and which can cause misunderstandings.

Keywords: scientific translation, engineering students, mistranslation, methods, technical field

LOOKING FOR ANSWERS IN THE TOY STORY FRANCHISE

Filimon Eliza Claudia¹

¹English Department, Faculty of Letters, History and Theology, West University of Timișoara

Abstract: The present paper follows narrative twists and turns in the *Toy Story* series, in view of bringing into focus the lessons adults learn from the four Disney-Pixar productions. Core questions which motivate characters to risk life and limb to find their true calling will be addressed and the emotional wringers will be deconstructed.

Keywords: emotion, existence, film sequel, identity, toys

DEVELOPING ESP TEACHING MATERIALS

Marcu Nicoleta Aurelia¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: This paper outlines the main types of ESP materials and evaluates their applicability in the case of teaching Legal English. The purpose of the study is to identify the most efficient ESP materials that produce learning outcomes and motivate law students in the process of acquiring the expected ESP competencies.

Keywords: English for Specific Purposes, Legal English, teaching materials, language competencies, communicative approach

WAYS OF EXPRESSING MEDICAL REALITIES

Năznean A¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The surrounding environment and the comparison of novelties with existing realities has long been a productive tool in medical writing. This paper is rooted in a corpus of medical texts selected randomly and from various fields of health sciences, and examines metaphorically

used phrases taken from common language in order to describe medical realities, such as *arterial wall*, *eardrum*, *vascular tunic*, etc.

Keywords: medical terminology, metaphors, medical English, common language, medical texts

THE CHALLENGE OF TRANSLATING MOVIE TITLES

Nicolae Cristina¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The paper analyses losses and gains in the translation of movie titles, which we approach from the perspective of the advertising discourse the source language text belongs to. The target language text challenges fidelity/freedom in translation, and creativity, in the attempt to keep to the message of the original text, to its impact and aim, in many cases retorting to transadaptation in the interlingual transfer.

Keywords: fidelity, transadaptation, advertisements, movie title

THE USE OF TEACHING AIDS IN ESP AS A METHOD OF ENHANCING STUDENTS' SOFT SKILLS

Rus Dana¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The paper aims to propose a perfectible list of teaching aids, together with their description and adequate techniques of implementation in an ESP class, which could positively impact students' acquisition of soft skills. Given the dramatically changing paradigm of language teaching and language teaching aims, in the context of the current requirements on the job market, a critical selection on the part of the teacher is indispensable when it comes to choosing the most adequate teaching aids. The paper suggests some possible applications of modern technologies which help the language learning process and contribute to the improvement and fine-tuning of student skills and attitudes.

Keywords: English methodology, ESP, CALL (Computer-assisted language learning), soft skills

STUDIES REGARDING THE IMPORTANCE OF SOFT SKILLS AMONG ENGINEERING STUDENTS

Ban Andreea Romana¹, Bucur Mihaela²

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

²Department of Industrial Engineering and Management, Faculty of Engineering and Information Technology, UMFST G.E. Palade Tg. Mures

Abstract: The purpose of the present paper is to identify the types of soft skills, the way they are found among the basic requirements in obtaining a job as a qualified engineer and how they can maximize the success in future careers. In many situations, technical skills are no longer sufficient

to get a good job. A common mistake is that engineers focus only on technical knowledge, ignoring the importance of soft skills. The authors conducted a study on a sample of companies that employ students from the Faculty of Engineering of “George Emil Palade” University of Medicine, Pharmacy, Science and Technology of Târgu Mureş. Based on this study the authors want to identify the extent to which these soft skills are taken into account in the job interviews or in the tests the engineering graduates are subjected to.

Keywords: technical, students, soft skills, engineering, communication

MODERN CHALLENGES IN TEACHING ENGLISH FOR SPECIFIC PURPOSES

Rus Dana¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: The paper aims to present an overview of the most significant changes with which teaching English for Specific Purposes is confronted nowadays. Resorting to theoretical and practical means, the paper will tackle with concepts related to curriculum design, syllabus design, selection of methodological resources and concrete suggestions which are potentially applicable in the context of modern ESP teaching.

Keywords: English teaching methodology, ESP, curriculum design, syllabus design

DEVELOPING LANGUAGE FUNCTIONS WITH LEGAL ENGLISH

Marcu Nicoleta Aurelia¹

¹SL1 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

Abstract: This paper aims to propose examples of developing language functions starting from Legal English materials. The focus on language functions constitutes a very practical approach to language teaching, especially in the case of ESP students, who have to deal with concrete contextual situations. The paper suggests ways of introducing and practising a series of language functions in both oral and written form.

Keywords: ESP, language functions, Legal English, oral communication, written communication

ECONOMIC SCIENCES

HUMAN RESOURCES - A POSSIBLE AND SAFE SOLUTION FOR INCREASING THE PERFORMANCE OF ENTERPRISES

Blaga Petruța¹

¹ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: Orienting and focusing the managerial outlook on human resources is not only a possibility but a safe solution to increase performance in all fields of activity, as the most valuable resource a company could have is the human resource. The active involvement of people who know what, when and where should be done determines an organization to achieve its goals. In the process of streamlining the production activity and increasing labor productivity, we can be applied methods related to the knowledge management and the active involvement of the human factor and less to the capital investments. The paper aims to highlight the importance of the huge human resource potential that exist and not fully used in enterprises. The discovery, enhancement and use of this potential in order to maximize the efficiency of the production activity and implicitly the value of the enterprise are real challenges for the management of an enterprise.

Keywords: enterprises, human resources, management, performance, efficiency

ENTREPRENEURIAL MODELS OF CULTURAL HERITAGE` CAPITALIZATION IN SOUTHERN TRANSYLVANIA AREA

Ștefan D¹, Vasile Valentina², Comes CA¹, Ciucan-Rusu L¹, Ștefan Anamari-Beatrice¹, Oltean Anca¹, Boantă VA¹, Timuș M³, Bunduchi Elena¹, Popa Maria-Alexandra¹

¹ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

² Institute of National Economy, Romanian Academy

³ „Ștefan cel Mare” University of Suceava

Background: Transylvanian region is internationally recognized for its authentic rural landscape that combines Romanian, Saxon and Hungarian culture, creating a harmonious and interesting mix of heritage – tangible and intangible. Nowadays, the rural area is considered as the cultural heritage depository with the greatest potential for preserving heritage values, both tangible and intangible, especially built heritage and local traditions. Sound integration of heritage and modern economic and social development models through new trademarks, tourism hubs development and new cultural routes not only will preserve the natural historic habitats but also will support the local development.

Material and Methods: Using predominant qualitative research methods, this paper aims to highlight the entrepreneurial models of rural tourism that have internationally consecrated

Southern Transylvania area and to identify sustainable needs of rural tourism entrepreneurs in the context of digital era.

Results: The preliminary results of the focus groups and the in-depth interviews applied to the participants indicate a high potential for cultural tourism development in the rural areas of Southern Transylvania, by cultural heritage capitalization, either through technological innovation methods or through the restoration of tangible heritage.

Conclusions: Some of the Transylvania's heritage were already integrated in the new concept of entrepreneurial rural sustainable development and promoted through innovative tourism services - some of the heritage assets of the common European culture i.e. the Saxon villages Viscri, Saschiz, Szeklers or Rimetea, just to name some. Investing in the restoration, preservation and promotion of local cultural heritage through the use of modern technologies would revitalize economically and socially the rural environment, integrating it into the regional and international economic and social value chain.

Keywords: cultural heritage capitalization, innovative entrepreneurship, Southern Transylvania, built heritage

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USE OF ERP INTEGRATED SYSTEMS IN THE EVIDENCE OF DISEASES THAT COME TO TREATMENT: DIALYSIS

Reş MD ¹

¹ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: The personalized way to record patients using dialysis as a treatment method. There will be presented the client records, the treatment schemes as well as the modalities of registration in the history of the registrations in their ERP system. A functional, generalizable module. Directly linked to the NAV system management / stock module. The client database can be managed in real time, with a history and a suggestion for treatment. Availability of items (medicines or medical devices) is checked in real time.

Keywords: ERP, dialysis, treatment, integration, stocks

TESTING THE RELEVANCE OF BENEISH M-SCORE VALUES FOR INVESTMENT ENTERPRISES AND INVESTMENT FIRMS OPERATING ON BUCHAREST STOCK EXCHANGE

Spătăcean IO¹

¹ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: Beneish Model is an effective tool for assessing the potential fraudulent behavior an entity could use in financial reporting by manipulating earnings. Tarjo and Herawati (2015) concluded that “*overall Beneish m-score model was capable to detect financial fraud*”. The study was conducted among 35 listed companies that were confronted with allegations of fraud over the period 2001-2014, according to the fraud Database of Sanctions of Issuer Cases Public Companies released by the Financial Services Authority. Also, Ahmet Ozcan (2018) stated that Beneish model “*aids effectively in the analyzing of quantitative characteristics of falsified financial statements*”, based on a research focussed on a sample of 174 firms over the period 2005-2017. Nevertheless, the designation of this model was not oriented for the financial service sector, as a result the studies referred to previously do not include any investment enterprise. Our research is aimed to assess the relevance of using the Beneish model as a tool for detecting manipulators in the financial service industry.

Material and Methods: The sample research includes six investment enterprises (SIF Banat Crisana, SIF Moldova, SIF Transilvania, SIF Muntenia, SIF Oltenia and Fondul Proprietatea) and 15 investment firms with a market share over 1%, operating on Bucharest Stock Exchange. The period under scrutiny comprises four fiscal years, between 2015-2018. The Beneish m-Score will be computed for each reporting entity, based on the financial information disclosed in their annual audited financial statements. For those reporting entities categorized as “*likely to be a manipulator of earnings*” (m-Score above -2.2), further research procedures will be performed in order to validate or not the signals, such as audit reports examinations, adverse media screenings, sanction list analysis or law enforcement authorities’ investigation reviews.

Results: Having into consideration their status of regulated and supervised entities, it is expected to obtain findings that supports either the assertion of “*not likely to be a manipulator of earnings*” or the invalidation of the contrary, based on integrity and reputation checks of those in charge with governance and senior management.

Conclusions: Relevant conclusions will be based on the results obtained after performing the research activity.

Keywords: earnings manipulation, investment enterprise, Beneish m-Score, integrity and reputation screening

STUDENTS’ PREFERENCES REGARDING TRAINEESHIP DURING STUDIES

Georgescu Maria-Ana¹, Kardos Mihaela², On Angela²

¹SL2 Department, „Petru Maior” Faculty of Sciences and Letters, UMFST G.E. Palade Tg. Mures

²ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: As students' traineeship is part of the university curriculum, our aim is to outline an image regarding the preferences of students at the Faculty of Economics and Law related to the way traineeship is organized. The aim is to develop their practical skills in order to increase employment opportunities in the labor market.

Material and Methods: Aiming to optimize the development of students' practical skills, we conducted a study based on the survey method (303 investigated subjects). We used the quantitative analysis of the responses.

Results: The reasons underlying students' desire to carry out traineeship are: 68.64% are motivated by the opportunity of gaining experience for developing a career, while 37.33% are motivated by getting a job on short or long term. Regarding the way in which traineeship should be organized: one day / week during the semester or a couple of weeks at the end of the semester, most students (59.4%) opted for the weekly program of the traineeship. Regarding the location of the traineeship, the students were given three options: a simulated enterprise within the university, an enterprise from the economic environment, or the mixed version, a combination between the first two. 47.52% preferred the mixed traineeship option, 43.23% opted for the simulated enterprise and only 9.24% were interested in the traineeship in a classical enterprise. At the same time, 91.41% showed interest for diversified traineeship activities, including IT laboratories, meetings with employers, practical applications in production / services.

Conclusions: The results of the study highlight several aspects: the students' interest to develop their skills through traineeship, the need to organize it in a more flexible way, as well as the importance of linking more directly the academic activities to the socio-economic environment. Gaining experience for the purpose of employment is very valuable, being the main motivation for the students.

Keywords: students, traineeships, preferences, practical skills

CORE E-PROCUREMENT REFORM IN ROMANIA – A SWOT ANALYSIS

Göndör Mihaela-Liliana¹

¹ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: Although international financial institutions, international organizations, governmental and non-governmental organizations have differently conceived, developed and enforced or applied principles and standards, public procurement represents a substantial and overall source of corruption. Statistics attest that corruption is notably prevalent in South-Eastern and Eastern European states. Focused on instruments to build up the transparency and to promote the digital transformation of public procurement, in force since 18 April 2016 and compulsory for every member state by 2018, the European Union new Directives aim to minimize corruption and to create "a culture of integrity in public procurement". The study aims to examine the results of the reform in Romania.

Material and methods: Considering the important role of The European single procurement document (ESPD) and E-Certis in the digital changeover of public procurement the study aims to offer a post-reform overview of the use of electronic tools to increase transparency and minimize corruption in public procurement in Romania. The study finds the strengths, weakness, opportunities and threats of the e-procurement in Romania, 2018, post-reform. The study uses official European and national data.

Results: The study has identified the strengths of the reform, such as the Electronic Public Procurement System (SEAP), the standardized awarding documentation and the experienced personnel in the field. The weakness has been analyzed, e.g. the improper mode of SEAP operation SEAP, software deficiencies, insufficient practical gains of the purchasers to use the SEAP, the contracting authority financial constraints, etc. The main opportunity is the involvement of higher education institutions, and the main threat – the political and economic instability.

Conclusions: The use of e-procurement (*the European single procurement document-ESPD and E-Certis*) represents the core of the reform in Romania, providing space to reduce corruption during all phases of the procurement process.

Keywords: Public Procurement Reform, E-Procurement

DATA TRENDS – COMPARATIVE ANALYSIS OF HEALTHCARE EXPENDITURE WITHIN EUROPEAN UNION

Göndör Mihaela-Liliana¹

¹ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: Although assumed to be opposed to the goals of fiscal sustainability, reaching greater access to quality healthcare and better patient choice represent a goal and a normal trend of modern healthcare national systems. Considering that the international comparison of financial policies can represent a basis for assessing and understanding the determinants of the performance, the study aims to present comparative key statistics on healthcare expenditure within the European Union.

Material and methods: By using official data provided by *Eurostat* and *European Observatory on Health Systems and Policy Monitor - Data Portal*, the study presents, compares and analyses data trends of healthcare expenditure “*all financing scheme*”, consist of (i) “*government schemes*”, (ii) “*compulsory contributory health care financing schemes*”, (iii) “*compulsory medical savings accounts as a part of the social security system*”, within European Union for 2009-2017.

Results: Besides the fact that all the European Union Member States comply with the same rules regarding public debt (e.g. 60% of GDP) and public deficit (e.g. 3% of GDP), their public spending, *particularly the public spending on healthcare*, widely differs, for different reasons and with different results.

Conclusions: The study demonstrates large heterogeneities in the size, structure and dynamics of the Member States public spending on health and points to the need for the harmonization of the healthcare national financial policies. Further research intends to create a typology of fiscal measures for health reform within the European Union.

Keywords: Public Healthcare Expenditure, Healthcare Reform, Healthcare National Financial Policy

THE SOCIAL CORPORATE BEHAVIOR OF ROMANIAN LISTED COMPANIES: A CASE STUDY

Dănescu Tatiana¹, Popa Maria-Alexandra¹

¹ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: Companies listed on the capital market face increasing internal and external pressure to meet ethical and social standards. The implementation of the Corporate Governance Code requirements, as well as of the social responsibility and ethics standards, plays a fundamental role in achieving the main objectives of sustainable development strategy, in the context of the new developments in information technology and digitalization. By fulfilling the requirements of the Corporate Governance Code, as well as by the existence of social responsibility practices an increased transparency and trust in the listed companies can be observed. Thus, this study aims to determine the compliance level of the companies listed on the capital market with the New Corporate Governance Code developed by the Bucharest Stock Exchange (BVB) and to analyze the companies' corporate social responsibility behavior.

Material and Methods: We identified the annual reports of the companies listed on the capital market and collected data on aspects related to corporate governance and social responsibility. By grouping the companies into two clusters, we analyzed the corporate social responsible behavior of companies that trade shares on both the Main segment and the Standard segment on BSE, using quantitative and comparative analysis methods.

Results: Preliminary results show that companies listed on the Main segment tend to register a higher level of compliance with the Corporate Governance Code than those listed on the Standard segment. Also, these companies are involved in several social responsibility projects, investing significant amounts of money annually in social, environmental or technology innovation and digitalization projects, involving both the community and employees, contributing to the achievement of the sustainable development strategy goals.

Conclusions: The companies listed on the capital market make constant efforts to comply with the corporate governance requirements and corporate social responsibility goals. Results show that companies listed on the Main segment generally report a higher compliance level, thus demonstrating a higher reporting transparency.

Keywords: corporate governance compliance, business ethics, financial reporting, capital market

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ROMANIAN SMES AND ENVIRONMENTAL ISSUES. CHALLENGES OF THE TRANSITION TO GREEN ECONOMY

Szabo Zsuzsanna Katalin ¹

¹ED1 Economic Sciences Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: The green economy becomes in last decades an issue with major importance worldwide militating for continuous improvement of the quality of life taking into consideration the rational and efficient use of the resources. The transition toward green economy can be emerged by appropriate legislation, adequate policies and investments. It is considered priority theme internationally and governments are interested in elaboration of meaningful policy framework.

This paper presents the Romanian experiences on SMEs and green economy. The role of SME sector in national economy will be analysed, environmental issues and the eco-innovation capacity of Romanian SMEs will be presented, key-success factors, barriers toward green economy will be identified. For data processing, the SPSS software package was used.

The used publicly available data shows that flagship initiatives of Europe 2020 strategy present challenges for Romania. The entrepreneurial activity is mainly necessity driven. For SMEs it is much more difficult to comply with environmental legislation than large companies. The environmental issues are generally familiar for the SMEs, the energy efficiency measures are popular. A high percent of SMEs use renewable energy source and generally has better attitude to the environment. Government sustain the efforts of transition to green economy. The eco-innovation performance of Romania is situated below EU average.

The obtained results highlight that the implementation of the green economy it is a very complex issue. Based on the obtained results can be stated that the transition toward green economy can be successful in a developed knowledge-based economies which creates the environment for a developed information society encouraging in this way the transition to digital economy. The transition is more successful in the countries which are able to manage the change (measured by change readiness index) and are able to use the benefits of ICTs. The developed green economies are the most innovative economies worldwide.

LAW AND PUBLIC ADMINISTRATION

INCOMPATIBILITY IN EXERCISING PUBLIC OFFICES – BETWEEN LEGAL PROVISIONS AND JURISDICTIONAL APPROACHES

Kajcsa Andrea¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: The issue of incompatibility in exercising public offices is certainly not new in the Romanian legislation and it refers to certain situations when a public official holds more than one position, when this is strictly forbidden by the law. If this situation occurs, however, the legislation provides for a type of correction, stating that the office of that particular public official will end, through the effect of the law itself, before reaching its natural terms of office. In the light of recent judgements of national courts in this field, we believe it is useful to reconsider the national provisions in the field of incompatibility and the way these are interpreted by the courts.

Material and methods: The study uses the logical method and analyzes the legal provisions from the national legislation in force and recent judgements given by national courts in this matter.

Results: We set as goal to determine whether the interpretation given by the courts to the legal provisions regarding incompatibility do not in fact deprive these of the effects intended by the legislator at the moment these were adopted.

Conclusions: The courts should bear in mind, whenever interpreting legal provisions, also the intention of the legislator when adopting the provisions in question as well as the general principle that regulates the interpretation of law according to which a legal provision should be interpreted in the sense that it produces certain legal effects rather than not.

Keywords: incompatibility, public office, terms of office, courts

TRANSPARENCY IN THE ACTIVITY OF PUBLIC ADMINISTRATION IN THE LIGHT OF THE GENERAL DATA PROTECTION REGULATION

Kajcsa Andrea¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: The changes that have been brought about by the GDPR starting with May 2018 are complex and ambitious. The Regulation is one of the most wide ranging pieces of legislation passed by the EU in recent years, and introduces many concepts that are yet to be fully discovered in practice, such as 'right to be forgotten', data portability, data breach notification and accountability. The legal form alone chosen by the EU - a regulation and not a directive - makes the GDPR stand out.

Material and methods: The study uses the logical method and analyzes the legal provisions from the national legislation in force regarding transparency and how this obligation that all public authorities have are to be reconsidered in the light of GDPR.

Results: We wish to analyze in this paper the main obligations that public bodies in particular have after the GDPR entered into force in correlation with the existing general transparency obligation that characterizes the activity of the public administration.

Conclusions: Public authorities need to be extra careful when dealing with any request of private individuals or companies for data that has come into their knowledge due to the specific activities they carry out, in order to comply with the protection requirements set out by GDPR.

Keywords: personal data, public authority, transparency, General Data Protection Regulation

EMPLOYMENT OF LABOR FORCE IN THE CURRENT CONTEXT

Marian Brîndușa¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: The 2008 economic crisis highlighted the vulnerability of the labour market in the member-states of the European Union. The disappearance of certain jobs, resulting in increased unemployment rates, lead both the structures of the European Union and those of member states to identify measures for the economic growth of states but also for the increase of the number of work places with effects on unemployment rates. The European Union legislation presents strategic objectives for national policies setting priorities in the field of employment, education and social inclusion. The paper presents the measures taken at European Union level, but also in Romania, in order to stimulate employment.

Methodology: The present study represents an analysis of the legislative framework and its implementation regarding the objectives set for employment rates at EU level.

Conclusions: The legislative acts dealing with employment include regulations corresponding to the current context. However, the analysis reveals that there is a discrepancy between the objectives of the legislator and the possibility of their implementation.

Keywords: Labour market, employment, unemployment, youth, workforce

PENSIONS IN THE LIGHT OF NEW LEGAL PROVISIONS

Marian Brîndușa¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: In the current social context, the law-maker considered it necessary to adopt new legal rules in the field of pensions. The new pensions' law no. 127/2019 regulates pensions from a new perspective. The existing pension categories, their beneficiaries but also the way these can be accessed to, are all issues that have undergone changes.

Methodology: The present study constitutes an analysis of the legislative framework in the field of pensions.

Conclusions: Law no. 127/2019 includes regulations regarding pensions that are more tailored to current socio-economic conditions. The law-maker amended the pension categories by the disappearance of the partial early retirement pension and introduced the minimum pension. It

also amended the rules concerning the insurance contract, setting out its concluding conditions more clearly.

Keywords: pensions, beneficiaries, insurance contract, minimum pension, retirement conditions

THE ROLE OF CRIMINAL LIABILITY IN COMBATING ECOLOGICAL CRIME

Dogaru Lucreția¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: Related to the ecological crime the aims of the study are to identify the main forms of this phenomenon, its consequences on the quality of the environment and human life as well as the legal measures to combat it. We will start by pointing out that the environmental protection against the activities with irreversible impact on environmental factors has become over the past few years an extremely important issue, a requirement of the contemporary society that attempts to find a stable frame for managing and taking the right decisions regarding the quality of the environment, in the benefit of all. We will show that, from the category of legal instruments intended to prevent and combat illegal environmental acts, the criminal legal instruments are proven to be the most important and effective.

Material and methods: By using official statistics on environmental crime, the study shows that environmental crime has recently become a very serious problem worldwide that is not limited by borders, having different forms of occurrence and manifestation, some of them being the most profitable criminal activities. All studies, reports and statistics show that this phenomenon represents a very serious and growing issue that causes significant damage to the environment both at the European and international level. The methods used in this study are those of investigation and analysis of the forms and consequences of the ecological crime as well as of the legal measures to establish the criminal liability both at European and national level.

Results: The study reveals that the ecological crimes that appeared in the criminal register have constantly multiplied and diversified, situation that resulted in the awareness of the need for appropriate and heavier sanctions. With all the measures taken, this type of criminality is often uncontrollable and accompanied by the ecological globalization phenomenon, with its negative risks and effects, generates immeasurable ecological damage. An essential issue consists in the fact that the ecological criminality is often encouraged because a lot of illicit environmental acts, although they present a special social danger, remain often unpunished.

In our opinion this happens both as a result of an inadequate conception and legislative flaws and inefficiency of the implementation of the legal provisions, as well as the fact that the quantifiable and economically reparable ecological damages are difficult to evaluate from a financial point of view. We found that as a consequence, the role of environmental criminal liability has increased and has become the primary form of establishing the legal liability of ecological offenders. We found that the role that the European Union's initiatives imply in the implementation of a special system of repression of ecological crime.

Conclusions: Considering environmental crime as a serious and growing problem that needs to be tackled at national and European level as well as at global level, criminal liability and criminal sanctions measures must occupy an important place in this field. We consider that the European Union involvement in increasing environmental compliance and governance it is an extremely important and necessary.

Keywords: environmental crime, protection, protection, sustainability, liability

FORESTS PROTECTION AND SUSTAINABLE DEVELOPMENT THROUGH THE EUROPEAN STRATEGY

Dogaru Lucreția¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: The issue of forests protection and sustainable development represents an important concern of the European Union and it is currently one of the central elements of the European Union's policies. Related to the general objective of forests protection and sustainable development we will emphasize the role of European forestry policy and the main steps to follow according to the regional and global forest strategy.

Material and methods: The study uses statistics and reports regarding the situation of European forests and analyzes the role and impact of forest policies and strategies at the European Union and Member states member. By using these tools we aimed to support the need of a wide vision for forests protection and to find out and to outline in detail how the European forestry strategy highlights its role and contribution in this area.

Results: This study reveals that all European strategies regarding sustainable forests protection and development are broadly adopted having a purpose in reductions the deforestation and forests degradation and increased the forests contributions to improve the life quality and to climate change mitigation and adaptation.

Conclusions: Taking into account the forests contribution to the European Union's objectives and targets and the need of their protection against harmful impacts, the European Union adopted in the last period, a coherent policy and strategy.

Keywords: forests protection, forests strategy, European forests policy, sustainable development

SOME CONSIDERATION REGARDING DEFENDING THE UE'S FINANCIAL INTERESTS THROUGH THE TOOLS OF CRIMINAL LAW

Valea Daniela Cristina¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: This paper aims to present and analyze the main aspect regarding the topicality and the perspectives of the defending the UE's financial interests through the tools of criminal law.

Material and methods: Due to the extension of the fraudulent phenomenon, the insufficiency of the sanctioning measures specific to the administrative law was emphasized¹. At the same time, was brought to attention the necessity to impose sanctions specific to the criminal law. In these conditions, it was proposed as a solution the imposition of a Union regulation of a criminal liability for the breaches brought to the financial interests of the European Union. But the influence of the legal instruments available to the European Union does not compare with the capacity and competence of the Member States in the field of criminal law. Furthermore, Member States cannot be obliged to criminalize certain acts or to regulate certain sanctions². More recently, based on some decisions of the European Court of Justice³, it can be argued that the European legislation may require the adoption of criminal measures to achieve the proposed goals.

¹ See Norel Neagu, *Fraudarea bugetului comunitar*, Wolters Kluwer Publishing House, 2008, p. 58.

² SE Norel Neagu, *Fraudarea bugetului comunitar*, p.60

³ Decision CJE C 176/03 / 13.09.2005.

Results and conclusions: The study has as a general result an overview of the current aspect of the criminal law tools used against the fraud if the UE financial interest, concluding that the changes occurred at the EU level and the national level are under the sign of a change of perspective and attitude at Member State level⁴.

Keywords: EU's financial interests, criminal law, fraud, European Court of Justice

INTERPRETATION OF THE CRIMINAL LAW

Sabău Pop OA¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: The correct interpretation of the criminal law is closely linked to the accurate and complete determination of the content of the criminal rule by the legislator, an essential requirement for the criminalization legality and a decisive prerequisite for the recipient of the law to understand the content of the prohibited act or the legal provisions. On the other hand, compliance with this condition avoids the excessive involvement of the judge in clarifying the text (for example, when the wording of the legislator is vague, elastic, ambiguous), and all the negative consequences of such an intervention (subjectivism, arbitrary opinions, contradictory solutions, etc.). Yet accurately determining the content of the rule represents an important means in achieving the purpose of the rule, as well as in properly disciplining the conduct of the recipient of the law. As criminal rules are instruments for regulating social relations, this desideratum can't be achieved (virtual efficiency) unless a practical application is found (real efficiency), that is, if they are actually used in achieving legal order. "To apply the law, wrote Professor Vintilă Dongoroz, therefore means to enforce (to fulfill) the rules of law contained by the law. However, the actual use of the rule according to its functionality is not conceivable without an accurate determination of the rule's content.

Material and methods: Form of interpretation: legal interpretation, interpretation of the courts, doctrinal interpretation

Results: Interpretation of the legal norms, especially in these cases, becomes a tool to determine the incrimination norm more precisely, and thereby, the achievement in the basic requirement in the light of the legal principle for incrimination and punishment.

Conclusions: Determining the exact content of the legal text is an important mean in achieving the goal of general prevention in committing crimes, as well as the properly disciplining the conduct of social activities in accordance with the law.

Key words: criminal law, interpretation, legislator, courts, legal text

⁴ See Norel Neagu, *Fraudarea bugetului comunitar*, p. 269-270.

CONSIDÉRATIONS CONCERNANT LE PRÉJUDICE PAR RICOCHET DANS LE CODE CIVIL

Boilă Lacrima Rodica¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Resumé: Le préjudice par ricochet est un dommage certain, direct, autonome, produit aux victimes indirectes, représentées par la famille ou les proches de la victime directe, à cause du décès de la dernière; il peut se manifester soit sous la forme du dommage patrimonial, ce qui consiste en la dépossession de la personne assistée ou ayant droit à l'assistance des allocations payées dans ce but par la personne décédée, soit sous la forme du dommage moral, d'affection, représenté par la peine psychique produite aux personnes qui avaient, au moment du décès, une relation affective étroite avec la personne décédée.

Mots-clés: préjudice, préjudice par ricochet, dommage indirect, dommage collatéral, dommage patrimonial, dommage moral

THE EXCEPTION OF ILLEGALITY, INDIRECT MEANS TO VERIFY THE LEGALITY OF THE ADMINISTRATIVE ACTS

Moldovan Maria Ximena¹

¹ED2 Law and Public Administration Department, The Faculty of Economics and Law, UMFST G.E. Palade Tg. Mures

Background: Emanating from a public authority, the administrative act benefits from the presumption of legality, which represents that quality that presumes that the act corresponds to the law, *lato sensu*. The presumption of legality is the consequence of the convergence of two other presumptions, namely the presumption of authenticity and the presumption of truthfulness. The character of these presumptions is relative, they can be overturned by concrete evidence brought by the person injured by the administrative act in a subjective right or in a legitimate interest. The exception of illegality is that procedural means by which, in a process underway, having an object other than the investigation of the illegality of the administrative act, the injured party by the illegal administrative act, requests that the act not be taken into account when solving the case.

Material and methods: At the base of conducting the study are numerous treaties, books, scientific papers and a large part of the jurisprudence of the courts. The research methods used are: the historical, the sociological, and the quantitative method.

Results: The legality control of the administrative acts is not carried out only through a direct action formulated under the conditions provided by Law no.554/2004 regarding the administrative litigation, but also indirectly, by invoking the exception of illegality. There is no express constitutional consecration of this form of verification of the legality of the administrative act, which has determined proposals to revise the fundamental law, in order to guarantee the judicial control over the administrative acts, both in direct and indirect form, by way of exception.

Keywords: administrative act, legality, indirect means

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The 12th Conference of Ph.D. Students and Young Doctors

George Emil Palade University of Medicine, Pharmacy,
Science, and Technology of Targu Mures
University Days
December 9 - 14, 2019, Targu Mures

The 12th Conference of Ph.D. Students and Young Doctors December 12th, 2019

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C.S.D. – Doctoral School Council

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FARMACIE (PHARMACY)

DEVELOPMENT AND OPTIMIZATION OF CANNABIDIOL ORODISPERSIBLE FILMS

Vlad R A¹, Regdon G Jr.², Sovány T², Kristó Katalin², Ibrahim Y H-E.Y.², Ciurba Adriana¹, Muntean Daniela Lucia³

¹Department of Pharmaceutical Technology, UMFST G.E. Palade Tg. Mureş

²Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged

³Department of Analytical Chemistry and Drug Analysis, UMFST G.E. Palade Tg. Mureş

Background: Orodispersible films (*ODFs*) represent a modern pharmaceutical formulation used for improving both the bioavailability and patient compliance. *ODFs* have the advantages of convenient application, rapid absorption and avoidance of the first-pass effect. The present study aimed to prepare *ODFs* incorporating cannabidiol (*CBD*) as the active constituent, having good properties such as a disintegration time less than 3 minutes. 9 formulations of films were prepared with quantities varied on 3 levels for both the film-former - hypromellose (*HPMC_{E3}*) and plasticizer - propylene glycol (*PG*). **Material and methods:** The *CBD-ODFs* with a concentration of 1.25 w/w% were prepared by solvent casting method. The films were investigated for tensile strength behaviour, mucoadhesivity, thickness, disintegration time and folding endurance. The results obtained were evaluated statistically.

Results: The prepared *CBD-ODFs* were transparent and smooth in texture. The **F4** (7% *HPMC_{E3}*, 0.5% *PG*) and **F5** (7% *HPMC_{E3}*, 1.5% *PG*) showed the fastest time of disintegration while the **F8** (9% *HPMC_{E3}* and 1.5% *PG*) and **F9** (9% *HPMC_{E3}* and 2.5% *PG*), showed the slowest times of disintegration. The *PG* concentration did not influence significantly the disintegration time.

Conclusions: *CBD-ODFs* have been prepared successfully; the disintegration time was within the limits permitted by *EPb 8.0*, the variation of the physical properties of produced films was attributed mainly to variation in the quantity of both the film former and plasticizer.

Keywords: cannabidiol, disintegration time, *HPMCE3*, orodispersible films

ATYPICAL ANTIPSYCHOTICS' (AAPS) EFFECTS ON STEROL RESPONSE ELEMENT BINDING PROTEIN-1 (SREBP-1)- AND UNCOUPLING PROTEIN-1 (UCP-1) LEVELS IN PERIRENAL ADIPOSE TISSUE (PAT), AND ON TOTAL SERUM CHOLESTEROL IN RATS

Bába LI¹, Kolcsár Melinda¹, Gáll Zs¹, Pap Zsuzsanna², Kun IZ³

¹Department of Pharmacology and Clinical Pharmacy, UMFST G.E. Palade Tg. Mureş

²Department of Anatomy, UMFST G.E. Palade Tg. Mureş

³Department of Endocrinology, UMFST G.E. Palade Tg. Mureş

Background: AAPs often induce metabolic changes, mainly weight gain and dyslipidemias. SREBP-1 is an important promoter of adipogenesis, while the UCP-1 is characteristic for brown adipose tissue. The present study investigated the metabolic profile of three AAPs, cariprazine (CAR), olanzapine (OLA) and aripiprazole (ARI) in terms of adipose tissue SREBP-1- and UCP-1-levels, and that of total serum cholesterol (Chol). **Material and methods:** The drugs were administered orally each in two doses (CAR 0.1 and 0.25 mg/kgbw once daily; OLA 0.5, 2, and ARI 0.5, 1 mg/kgbw three times daily) to adult, female Wistar rats (n=6 for each group, in total 42 animals). After six weeks of treatment, the animals were sacrificed and pAT, as well as blood samples were collected. SREBP-1 and UCP-1 were detected immunohistochemically. Images of tissue sections were taken at 200x magnification; brown areas (positive reaction) were quantified using ImageJ software and expressed as percent of brown area in sections. Chol was assessed by an enzyme-linked colorimetric assay. **Results:** The expression of SREBP-1 was prominently decreased by the higher dose of ARI (0.06±0.02 vs 0.27±0.21% p:0.04) while expression of UCP-1 significantly increased by the low dose of CAR compared to the control group (1.83±0.37 vs 1.34±0.23% p:0.02). The treatment with the high dose of CAR induced elevation of Chol versus the controls (189.4±31.17 vs 135±29.57 mg/mL p:0.01). **Conclusions:** The decrease of SREBP-1 expression by ARI can be considered a beneficial mechanism reducing the adipogenesis. Similarly, the increase of UCP-1 expression by CAR can eventually lead to AT browning and attenuation of weight gain. The elevation of Chol by CAR in this experimental setting conflicts with some clinical data regarding this drug.

Keywords: Pharmacology, Experimental pharmacology, Atypical antipsychotics, olanzapine, cariprazine,

MEDICINĂ CLINICĂ (CLINICAL MEDICINE)

HOW OVERALL SURVIVAL OF PATIENTS WITH GASTRIC CANCER IS INFLUENCED BY PATHOLOGIC LYMPH NODES

Fülöp ZZ¹, Bara T Jr¹, Bara T¹, Drágus Emőke², Fülöp Réka Linda¹, Scurtu Alexandra¹, Jung I³

¹Department of Surgery II, UMFST G.E. Palade Tg. Mureş

²Department of Urology, UMFST G.E. Palade Tg. Mureş

³Department of Pathology, UMFST G.E. Palade Tg. Mureş

Background: Gastric cancer incidence declined worldwide in the last decades, but it is still the fifth most common cancer type and the third most frequent neoplasm in terms of mortality. In terms of survival, the presence of lymph node metastases appears to be an important prognostic factor. We aimed to determine the possible prognostic role of the lymph node ratio in patients with gastric carcinomas. **Material and methods:** A retrospective study was conducted based on the database from our surgical department during 2013 and 2018, targeting patients with gastric cancer. All the investigated cases underwent surgical resection. Patients' overall survival in accordance with the value of lymph node ratio was evaluated, along with other investigations regarding patient and cancer specific aspects. **Results:** 203 cases were investigated with a male to female ratio of 2.5/1. The most common histological type was adenocarcinoma (59.2%), followed by signet ring cell carcinoma (16.8%). The association of the lymph node ratio with the tumor T stage showed a significant correlation ($r=0,288$, $p<0,0001$). Furthermore a significant correlation was observed between the tumor stage and overall survival rate ($r=0,259$, $p<0,011$). **Conclusions:** The number of malignant lymph nodes has proven to be the most important survival factor, using multiple methods of analysis. More than half of gastric cancer patients are diagnosed in advanced stages (III, IV), which is why even when curative resection is possible, recurrence can occur in about 60% of the cases.

Programme of Hungary.

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Keywords: lymph node ratio, gastric cancer, overall survival

GENOTYPE-PHENOTYPE CORRELATIONS IN BECKWITH-WIEDEMANN SYNDROME IN ROMANIAN POPULATION

Balla Beata¹, Tripon F¹, Crauciuc GA¹, Bogliş Alina¹, Chirita-Emandi Adela², Bănescu Claudia¹

¹Department of Genetics, UMFST G.E. Palade Tg. Mureş

²Department of Genetics, UMF Victor Babeş Timișoara

Background: The aim of the study was establishing the predominant genotype in patients with Beckwith-Wiedemann Syndrome (BWS) in Romania (no data published in this regard so far), and analyzing genotype-phenotype correlations. BWS associates changes in imprinting centers (ICs) on chromosome 11p15. ICs regulate the methylation of certain genes involved in normal growth, including IGF2, CDKN1C, KCNQ1OT1 (KvDMR1) and H19. Aberrant methylation disrupts the regulation of these genes, leading to the characteristic features of BWS. **Material and methods:** Molecular testing was successfully completed on 20 patients with clinical diagnosis of BWS, using MS-MLPA (Methylation-specific Multiplex Ligation-dependent Probe Amplification). **Results:** 8 patients (40%) with normal, and 12 patients (60%) with modified molecular results. Of these 12 patients, 11 (91.66%) had hypomethylation in *KvDMR1* and only one patient (8.33%) had hypomethylation in *KvDMR1* and uniparental disomy (UPD) of the 11p15.5 region. No patients were identified with deletions, duplications, mutations or copy number variations. The most common phenotypic change was macroglossia, present in 100% of patients with *KvDMR1* hypomethylation, and 25% of patients with normal results ($p=0.0007$). Other common findings like macrosomia, hemihypertrophy, neonatal hypoglycemia, abdominal wall defects, visceral impairment, ear lobe deformities, hemangioma and craniofacial dysmorphism were not in statistically significant association with *KvDMR1* hypomethylation ($p\geq 0.05$). **Conclusions:** Although none of the BWS phenotypes can be considered specific to a molecular anomaly, differences can be observed in different molecular subtypes that determine a specific phenotypic profile, despite a certain degree of clinical overlap. In the next few years, we expect much progress in BWS research. In order to make these advances accessible to clinicians, it is important to periodically review the current state of both clinical and molecular aspects of BWS.

Keywords: Beckwith-Wiedemann Syndrome, MLPA, methylation

A RARE CASE OF PULMONARY SARCOIDOSIS MIMICKING GASTRITIS IN A 14-YEAR-OLD TEENAGER

Meliț Lorena Elena¹, Mărginean Cristina Oana¹, Săsăran Maria Oana², Kovecsi A³

¹Department of Pediatrics I, UMFST G.E. Palade Tg. Mureș

²Department of Pediatrics III, UMFST G.E. Palade Tg. Mureș

³Department of Pathology, UMFST G.E. Palade Tg. Mureș

Background: Sarcoidosis is a systemic granulomatous disease that affects young adults with lung and lymph nodes as the most common affected organs. **Material and methods:** We report a case of pulmonary sarcoidosis in a 14-year-old teenager in order to underline the atypical onset and its rarity in pediatric ages. **Results:** The patient was admitted in our clinic for repeated vomiting and loss of appetite suggesting a potential diagnosis of acute gastritis. The laboratory test at the time of admission revealed only hypercalcemia, and elevated levels of urea and creatinine, which were interpreted in context of dehydration. Nevertheless, the symptoms and these levels remained elevated despite appropriate intravenous rehydration for 24 hours. The abdominal ultrasound revealed only a smaller ectopic right kidney. Despite the symptomatic and supportive treatment, the acute renal failure persisted, and thus we performed a thoracic and abdominal CT, which revealed massive mediastinal adenopathy and multiple nodular masses within both lung. We raised the suspicion of mediastinum and pulmonary sarcoidosis or lymphoma. The angiotensin converting enzyme was also elevated. Thus, the patient was referred for bronchoscopy and mediastinal biopsy. Both bronchial and mediastinal biopsies confirmed the diagnosis of sarcoidosis. We initiated the treatment with corticosteroids, with outstandingly favorable evolution after approximately 1 week. The follow-up at approximately 1 month revealed normal laboratory parameters and no clinical symptoms. **Conclusions:** The natural history of sarcoidosis is highly variable and spontaneous remission is frequent. Nevertheless, corticosteroids are a viable therapeutic option especially during childhood.

Keywords: sarcoidosis, lung, lymph nodes, child

OVERALL SURVIVAL IN EARLY STAGES CERVICAL CANCER PATIENTS FOLLOWING OPEN RADICAL HYSTERECTOMY. A PRELIMINARY REPORT OF A LONG-TERM COHORT PROSPECTIVE STUDY.

Stanca M¹, Căpîlna M E¹, Ciobanu Victoria¹, Mozes Brigitta¹, Alexandru Laura Bernadett¹, Gheorghe M¹, Stanca Anca Maria²

¹Department of Gynecology I, UMFST G.E. Palade Tg. Mureș

²Department of Pharmacology, UMFST G.E. Palade Tg. Mureș

Background: Cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers. Treatment depends on disease extent at diagnosis and locally available resources, and might involve radical hysterectomy or chemoradiation, or a combination of both. **Material and methods:** We conducted a prospective cohort study in which we included all patients with cervical cancer stages IA2 - IIB (FIGO 2018) who underwent radical hysterectomy at the Emergency County Hospital of Tîrgu Mureș - First Obstetrics and Gynecology Clinic between January 2010 - April 2019. We evaluated both the pre-operative clinical and paraclinical data, the intraoperative elements and the histopathological results of each patient. We also contacted patients or their relatives in order to find the current status of the patients - alive or deceased. **Results:** 442 patients underwent radical hysterectomy, from which only 393 met the inclusion criteria of the study. The distribution of FIGO (2018) stages was: IB2 33%, stage IIB 31%, stage IB3 15%, stage IIA1 10%, stage IIA2 8% and in smaller proportions stages IB1 2%, respectively stage IA2 1%. The most common histology was squamous cell carcinoma 86% followed by adenocarcinoma 14%. Numerous histopathological findings were also examined, such as the histological differentiation, parametrial invasion, lymphovascular invasion, depth of cervical stromal invasion, close surgical margins, number of removed lymph nodes and positive lymph nodes. At the moment we have feedback from 93 patients (19%) who underwent radical hysterectomy between 2012 and 2015, with a 5-year survival of 81%. **Conclusions:** Considering that it is an ongoing study, based on the information obtained at the present moment we cannot conclude whether the results are statistically significant. Further research and feedback gathering from all the patients will allow us to perform a Kaplan-Meier

survival curve allowing us to draw conclusions.

Keywords: Cervical cancer, Radical hysterectomy, Survival

HEMORRHAGIC STROKE IN A PATIENT WITH LEFT VENTRICULAR ASSIST DEVICE

Opris Carmen¹, Gurzu Simona¹

¹Department of Pathology, UMFST G.E. Palade Tg. Mureş

Background: The left ventricular assist device (LVAD) is a very good solution for patients who have an advanced form of heart failure, refractory to medical treatment. This device is a small pump that can be implanted in the apex of the left ventricle and supplies the ventricular function. Although the quality of life of these patients increases, the complications related to LVAD might be difficult to be treated. **Material and methods:** We present the case of a young female with peripartum cardiomyopathy who had implanted a continuous flow left ventricular assist device (CF-LVAD) as bridge therapy to recovery or transplant. After 2 years of good evolution, a fatal hemorrhagic stroke was installed despite the normal values of blood pressure and Prothrombin Time and International Normalized Ratio (INR). **Results:** The autopsy examination, followed by microscopic assessment, confirmed the intra-ventricular cerebral hemorrhage, as the cause of death. In the right frontal lobe, foci of intraparenchymal cerebral hemorrhage were also visualized. No cardiac disorders which may induce death were described. **Conclusions:** The blood pressure and a good INR control play a role in preventing cerebral hemorrhage but in LVAD patients the hemorrhagic stroke may appear even in case of efficient INR and blood pressure values.

Keywords: cardiovascular, pathology, ventricular assist device, cerebral hemorrhage, cardiomyopathy

NON-ALCOHOLIC FATTY LIVER DISEASE AND METABOLIC RISK FACTORS

Opaschi R¹, Simona Băţagă¹, Zolog Şchiopea Minodora¹, Franduş S¹, Chibulcuţean Oana¹, Matei Lavinia¹, Macarie Melania¹

¹Department of Internal Medicine I, UMFST G.E. Palade Tg. Mureş

Background: Non-alcoholic fatty liver disease (NAFLD) is the most prevalent chronic liver disease worldwide. Non-alcoholic steatohepatitis (NASH), a severe form of non-alcoholic fatty liver disease, can lead to steatofibrosis and hepatocellular carcinoma development. Obesity, type 2 diabetes mellitus, and dyslipidemia are the most common metabolic risk factors associated with this liver injury. **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 2018-31th of December 2018. Demographical, anthropometrical and clinical data's were collected for each patient, the medical records were used to check for comorbidities, ultrasonographic aspects, laboratory findings. **Results:** In the studied period from January 2018-31th of December 2018 there were diagnosed 173 patients with NAFLD, with a mean age of 59.91±13.48 years and a male/female ratio of 1.2/1. Non-alcoholic steatohepatitis was found in 63 patients with a mean age of 56.82±13.71 and a male/female ratio of 1.42/1. By comparative analysis between NASH group and non-alcoholic fatty liver group (NAFL), we didn't find a statistically difference in incidence of hypertension, obesity, hyperuricemia, high cholesterol, and high triglycerides level. Considering all patients, the most frequent risk factors were hypertension in 66.47% of cases (115) and obesity or overweight in 44.50%(77). **Conclusions:** Non-alcoholic steatohepatitis was found most frequent in male patients. In this study we didn't find a difference in metabolic factors between patients with NASH and NAFL. These findings underscore the importance of identifying new environmental and genetic factors implicated in NASH development.

Keywords: obesity, dyslipidemia, non-alcoholic fatty liver, non-alcoholic steatohepatitis

REHABILITATION BY COMBINED TECHNIQUES IN A CASE WITH SEVERE DISABILITY

Părău Daniela¹, Todoran Anamaria², Bogliș Alina², Bălașa Rodica³

¹Kinetherapy, UMFST G.E. Palade Tg. Mureș

²Department of Genetics, UMFST G.E. Palade Tg. Mureș

³Department of Neurology, UMFST G.E. Palade Tg. Mureș

Background: Patau syndrome represents a rare chromosomal disease caused by the additional presence of chromosome 13, a pluriformative syndrome with a characteristic phenotype, with skeletal abnormalities and severe neuro-psycho-motor retardation, with evolution and reserved prognosis, with reduced survival over age 1 year. **OBJECTIVE:** This case study proposes a therapeutic plan and analyzes the changes that occur during 6 months of combined physical therapy, aiming to rehabilitate the child with this condition to the highest degree. **Material and methods:** The 1.6-year-old female patient, with Patau syndrome as a result of a neurological evaluation, is classified as a development level at 3 months of age and oriented towards a recovery treatment. The proposed therapeutic plan was the combination of two specific therapies, Bobath and Vojta, each applied initially, in separate sessions, then combined in the same session, therapy sustained with a frequency of 3 times weekly, lasting 30 minutes / session. The effects of kinetic treatment were evaluated after a period of 6 months, according to the posture models of the ideal ontogenesis according V. Vojta. **Results:** At the beginning of the therapy, after the evaluation of the spontaneous mobility, the little girl was at the level of development of 3 months and with abnormal primitive reflexes. After 6 months of therapy, according to the proposed scheme, the progress was very good, the patient being evaluated at a development level of a 6 months old child. **Conclusions:** At the beginning of the therapy, after the evaluation of the spontaneous mobility, the little girl was at the level of development of 3 months and with abnormal primitive reflexes. After 6 months of therapy, according to the proposed scheme, the progress was very good, the patient being evaluated at a development level of a 6 months old child.

Keywords: syndrome, recovery, therapy, Vojta, Bobath

PLEURAL EMPYEMA IN A PATIENT WITH POST-TUBERCULOUS SYNDROME WITH EXTENSIVE PULMONARY FIBROSIS - CASE REPORT

Balog Hédi-Katalin¹, Ianoși Edith-Simona¹, Morar Daniela¹, Sárközi T¹, Jimborean Gabriela¹

¹Department of Pulmonology, UMFST G.E. Palade Tg. Mureș

Background: The complications of secondary pulmonary tuberculosis (PTB) include relapse, extensive pulmonary fibrosis, hemoptysis, bronchiectasis or intracavitary aspergilosis. The post-tuberculous syndrome predispose to developing severe infections. **Material and methods:** We present the case of a 45-years-old patient, who was hospitalized in the Pneumology Clinic for dyspnoea for medium effort, proproductive cough and night sweats. Personal history mentions secondary PTB in 2015 and chronic alcohol abuse. At the moment of the hospital admission we performed bacteriology for Koch bacili (BK), all of these were negative on direct microscopy and culture. Postero-anterior chest x-ray revealed bilaterally accentuated reticulo-interstitial drawing, opacity with bone-density situated middle-basal upright (liquid-like) and right pahipleuritis. We performed pleural puncture (under ultrasound guiding) and we evacuated 10ml purulent fluid - negative for KB (microscopy and culture), but extremely rich in neutrophils and bacteria (cocci and cocobacilli). Thoracic CT described extensive pulmonary fibrosis and right pleural collection up to 94mm. The patient was admitted to the Thoracic Surgery Department in Cluj to perform right pleurotomy with insertion of a chest tube. Through the tube it was evacuated 500 ml of purulent fluid and the GeneXpert test was positive for mycobacteria from fluid. A complex treatment was initiated with antibiotics, antifungal, anti-inflammatory, mucolytic and gastroprotective drugs. After five weeks of treatment the thoracic CT described a favorable evolution, the thickness of the sliding fluid of 15mm and of the air of 16mm. **Results: Conclusions:** Early diagnosis of the complications that can interfere in patients with extensive posttuberculous syndromes are very important. In pleural empyema is required surgical drainage, which must be associated with large spectrum antibiotic treatment, at least one month.

Keywords: pleural empyema, post-tuberculous syndrome, extensive pulmonary fibrosis, purulent fluid, surgical drainage

PULMONARY CARCINOSARCOMA; CAN BRONCHOSCOPY MISSED THE COMPLETE DIAGNOSIS?

Colopoş Claudia¹, Jimborean Gabriela¹, Grigorescu Bianca Liana², Suci Bogdan Andrei³

¹Department of Pulmonology, UMFST G.E. Palade Tg. Mureş

²Department of Pathophysiology, UMFST G.E. Palade Tg. Mureş

³Department of Anatomy, UMFST G.E. Palade Tg. Mureş

Background: Pulmonary carcinosarcoma is a rare, biphasic, malignant tumor, representing less than 1% of all pulmonary neoplasms, with a poor prognosis. **Material and methods:** We presented the case of a 52 years-old man (heavy smoker, with occupational exposure) hospitalized for dry cough, sweating, thoracic joint and marked weight loss. The physical examination revealed crackles at basal left hemithorax. The functional respiratory tests established a mild mixed ventilatory dysfunction. The chest x-ray showed the presence of an extended opacity, imprecise delimited with extension in left paracardiac pulmonary parenchyma. The thoraco-abdominal CT scan performed revealed a mass in the inferior left lobe with extension to the visceral pleura, another mass in touch with inferior lobe bronchus and 3 hypodense nodules in liver. The bronchoscopy showed inferior segments (8 and 9) obstruction by a proliferative process with necrosis. Biopsy was performed and it revealed squamous cell carcinoma. Left exploratory thoracotomy, pleural husking, mediastinal lymphadenectomy and double pleural drainage were performed and histopathological examination revealed squamous and sarcomatous cell carcinoma with PD-L1 expression-90%. PET-CT showed a tumoral mass on the left hilum and vertebral metastases. Patient underwent palliative-analgesic and curative radiotherapy for spine lesions, for mediastinum and chest wall and started immunotherapy with Pembrolizumab. **Results:** **Conclusions:** The biopsy performed by bronchoscopy has some limitations in such rare cases of cancer. A multidisciplinary team is mandatory for an accurate diagnosis and therapeutic approach.

Keywords: pulmonary carcinosarcoma, rare pulmonary neoplasm, bronchoscopy, thoracotomy, multidisciplinary team

THE ROLE OF PLATELET-TO-LYMPHOCYTE RATIO IN THE DIAGNOSIS OF PEDIATRIC GASTRITIS

Sasaran Maria Oana¹, Meliţ Lorena Elena², Mocanu Simona³, Ghiga Dana Valentina⁴, Dobru Ecaterina Daniela⁵

¹Department of Pediatrics III, UMFST G.E. Palade Tg. Mureş

²Department of Pediatrics I, UMFST G.E. Palade Tg. Mureş

³Department of Pathology, UMFST G.E. Palade Tg. Mureş

⁴Department of Informatics, UMFST G.E. Palade Tg. Mureş

⁵Department of Internal Medicine VII, UMFST G.E. Palade Tg. Mureş

Background: Chronic gastric inflammation needs a prompt recognition from a young age, due to its possible evolvement into gastric malignancy later in life. Recent literature data support the use of platelet-to-lymphocyte ratio (PLR) as assessment tool of systemic inflammation and infection in various pathologies, including gastritis. The aim of this study was to determine the utility of PLR in predicting gastritis in children with dyspeptic symptoms. **Material and methods:** A prospective study was conducted between March 2018- September 2019 on 112 patients with ages ranging from 1 to 17 years. We included in the study patients with chronic dyspeptic symptoms, who underwent upper digestive endoscopy with gastric biopsies and a complete blood count. **Results:** Depending on the histopathological examinations, we divided the patients into three groups: 44 patients without microscopic abnormalities, 24 patients with *Helicobacter Pylori* (HP) gastritis and 41 patients with non-HP gastritis. We excluded from the study 3 patients with particular diagnoses. The sex distribution was similar between the groups, without a significant association between sex and gastritis ($p=0.39$). However, gastritis and HP infection were positively associated with rural area ($p<0.01$). Number of platelets did not differ significantly between the three groups ($p=0.6$), but values of lymphocytes were compellingly lower in the non-HP gastritis group when compared to controls ($p=0.01$). Regarding PLR, statistically significant lower values than in controls were found in the non-HP gastritis group ($p=0.03$), whereas HP infection seemed to exert no influence on this parameter ($p=0.72$). **Conclusions:** In this study, lower values of PLR were linked to non-HP gastritis, contrary to literature data which report higher values of this biomarker associated to adult gastritis and HP infection. Further studies on larger pediatric populations need to clarify these findings.

Keywords: Platelet-to-lymphocyte ratio, pediatric gastritis, Helicobacter Pylori

THE ROLE OF FORMATIVE INTERVENTION IN DIABETES IN PRIMARY AND SECONDARY SCHOOL TEACHERS

Lica Melania¹, Porkolab Annamaria², Muntean Irina³, Mihai Adriana⁴

¹Department of Pediatrics II, UMFST G.E. Palade Tg. Mureş

²Department of Endocrinology, UMFST G.E. Palade Tg. Mureş

³Diabetes, nutrition and metabolism disease, UMFST G.E. Palade Tg. Mureş

⁴Department of Psychiatry, UMFST G.E. Palade Tg. Mureş

Background: The children with diabetes mellitus have often difficulties regarding school adaptation and integration, generated largely by the special conditions of the disease. On the other hand, how the child succeeds in this adaptation interferes with the management of chronic disease and the quality of his life. An important role for the child with diabetes in school is played by the head teachers. The informations about this disease and the attitude towards the children affected by this disease are important variables in this direction. **Objective:** Improving the teachers knowledge and attitude toward diabetes in children by providing quality information and practical intervention techniques. **Material and methods:** 86 head teachers from elementary and secondary schools were interviewed regarding their informations about diabetes in children. **Results:** After their participation in a theoretical and practical training course, their knowledge and their attitude have been considerably improved. The follow-up evaluation (after 6 months) indicated a stability of informations and practical techniques for granting first aid, over time. **Conclusions:** Formative intervention of teachers is an important step in helping children with diabetes to better school adaptation and, also in improving the quality of their life.

Keywords: diabetes mellitus, adaptation,, diabetes mellitus, quality of life, formative intervention

BEHIND THE CONCEPT OF BENIGN MULTIPLE SCLEROSIS

Barcutean Laura¹, Motataianu Anca¹, Maier Smaranda¹, Balasa Rodica¹

¹Department of Neurology, UMFST G.E. Palade Tg. Mureş

Background: The diagnosis of multiple sclerosis (MS) carries a high variability in terms of prognostic, evolution and treatment response. While some patients follow the curves of natural history and their disease course is somehow predictable once they reach a progressive phase, there are the ones that have an almost imperceptible evolution. Thus, the term benign MS (B-MS) started to take shape. But given the controversy and the multifaceted aspect of this pathology, a consensus regarding the diagnostic criteria for B-MS is still under debate. **Material and methods:** We aimed to evaluate 34 patients with MS treated in our clinic with interferon beta-1b (IFN β 1b) for more than 10 years, that have a low disability score, an EDSS \leq 2.0. The clinical assessment included relapse rates, type of onset and evolution, walking tests using T-25-Foot-Walk (T25FW), cognition evaluated by Serial Digit Modalities Test (SDMT) and the assessment of depression by Hamilton Scale (HAM-D). Serum samples were collected from 26 of the patients for Th17 cytokine Panel analysis, including pro and anti-inflammatory cytokines. **Results:** Most of the patients presented an onset with brainstem involvement (29,41%), followed by sensory symptoms (23,52%). The relapse rate was significantly decreased ($p < 0.0001$), the mean T25FW was 4.93 ± 0.50 and the mean SDMT was 35.68 ± 11.03 . No indicators of depression were found in the present lot, with a mean HAM-D of 5. We found a significant positive correlation between IL-10 and IL-17F ($r = 0.472$, $p = 0.014$). **Conclusions:** The obvious reduction of the relapse rates, the absence of depression and the ambulatory independence are predictive factors in maintaining a B-MS diagnosis, together with the onset with symptoms secondary to brainstem involvement in our selected lot.

Keywords: Neurology, Evolution, Multiple Sclerosis, Benign Multiple Sclerosis, Relapse Rates

NEUROINFLAMMATION IN ACUTE ISCHEMIC STROKE

Popescu SD¹, Bălașa Rodica²

¹Department of Radiology, UMFST G.E. Palade Tg. Mureș

²Department of Neurology, UMFST G.E. Palade Tg. Mureș

Background: Acute ischemic stroke appears when an artery of the brain is suddenly blocked by a thrombus or an embolus. The set of changes that occur in the ischemic brain cells lead to neuroinflammation and have a real impact on the patient clinical condition. The aim of this paper is to make a short review of the literature regarding the main mechanisms implied in neuroinflammation following ischemic stroke. **Material and methods:** A number of over twenty articles about acute ischemic stroke and about neuroinflammation were read and synthesized in order to conceive this paper. **Results:** In the acute phase of ischemic stroke a series of pathophysiologic mechanisms appear. After an acute ischemic event the level of glutamate increases and activates an influx of calcium in the brain cells that leads to induced cellular death. DAMPs (damaged associated molecular patterns) secreted by the ischemic brain cells activate the microglia and the peripheral leucocytes. The pro-inflammatory cytokines together with leucocytes infiltration and the damaged hematoencephalic brain barrier lead to neuroinflammation. The activation of microglia is made either towards pro-inflammatory M1 phenotype either to anti-inflammatory M2 phenotype. The main cytokines studied in acute ischemic stroke are: pro-inflammatory IL-1 beta, IL-2, IL-6, IL-8, IFN-gamma, TNF, and anti-inflammatory: IL-1Ra, IL-4, IL-5, IL-10, IL-13, TGF-beta. Some of this inflammatory cytokines are associated with poor functional outcome and infections in patients with acute ischemic stroke. **Conclusions:** The process by which the brain and the immune system responds to acute brain ischemia secreting inflammatory mediators influence the functional outcome and the infectious complications of the patients who suffered an acute ischemic stroke.

Keywords: neuroinflammation, ischemic stroke, microglia activation, pro-inflammatory cytokines

CEREBROSPINAL FLUID CHARACTERISTICS IN HIV INFECTED PATIENTS WITH NEUROLOGIC AFFECTIONS

Andrejkovits AV¹, Georgescu Anca Meda¹, Chiriac Lucia Carmen¹, Incze Andrea¹, Zaharia Kezdi Erzsebet Iringo¹

¹Department of Infectious Diseases, UMFST G.E. Palade Tg. Mureș

Background: Severe immunodepression is a risk factor for CNS (Central Nervous System) affections. It is challenging to establish an appropriate diagnosis. The CSF (Cerebrospinal fluid) examination offers basic information. **Material and methods:** We performed a retrospective cross-sectional study at the 1st Infectious Disease Clinic of Targu Mures, during January 2012-October 2019. In our study we included HIV infected patients with lumbar puncture, CSF exam, due to their neurological signs. 72 CSF specimens were obtained, analyzed from 68 patients (43 males, median age 29,3 years, undetectable viral load in two subjects, median TCD₄ lymphocyte count (LTCD₄) was 189,9/mm³). **Results:** Tuberculous meningitis (TBM) was the most prevalent disease, followed by cryptococcal meningitis (CM), meningitis with unknown etiology (MUE), multifocal progressive leukoencephalopathy (LEMP), cryptococcus-TB coinfection and others. Overall, CSF analysis revealed pleocytosis in 28, high protein levels in 46, and hypoglycorrhachia in 17 cases. 43 patients had etiological diagnosis of CNS affection. From 16 patients with TBM, 7 patients had pleocytosis, 1 CSF was xanthochrome, 9 had elevated protein levels, 1 had low chloride level, 9 patients had LTCD₄<200/mm³. In cases of CM, 9 had elevated protein levels, 6 pleocytosis, 4 hypoglycorrhachia, 9 patients had LTCD₄<200/mm³. In cases of MUE, we found pleocytosis at all patients, 8 elevated protein level, 2 hypoglycorrhachia, 6 had LTCD₄<200/mm³, 4 CSF were xanthochrome. In subjects with LEMP, 3 had LTCD₄<200/mm³, 4 had elevated protein level, 2 pleocytosis, 1 hypoglycorrhachia, 1 JC virus positive, all of them had demyelination process on imagistic findings. Cryptococcal and TB coinfecting patients all had LTCD₄<50/mm³, 3 pleocytosis, 4 elevated protein level, 3 hypoglycorrhachia, with normal CSF aspect. **Conclusions:** In severely immunodepressed patients CSF modifications are not characteristic, as they offer limited information for the diagnosis of CNS affections.

Keywords: SNC affections, HIV, CSF, immunodeficiency

ALLERGIC CONTACT DERMATITIS WITHIN AND SURROUNDING A HEALING TATTOO, CAUSED BY DEXPANTHENOL: A CASE REPORT

Ledan- Muntean Szende¹, Tudor Bianca², Balint Orsolya³

¹Dental Medicine, UMFST G.E. Palade Tg. Mureş

²Department of Microbiology, UMFST G.E. Palade Tg. Mureş

³Department of Dermatology, UMFST G.E. Palade Tg. Mureş

Background: Dexpanthenol is the alcohol analogue of panthothenic acid. It is often present as a component of moisturizer creams and wound-healing promoter ointments; it has been shown to be responsible for allergic contact dermatitis (ACD). Decorative tattoos are deliberately created open wounds, which heal in a short period of time. Using ointments, containing dexpanthenol is advised to be applied on tattoos, to promote healing. **Material and methods:** We present the case of a 25 year old healthy female, who presented for a papular rash localized to a newly tattooed area. The eruption appeared suddenly and persisted 5 days, until it was medically treated. Patch-testing of the tattoo ink was performed by the tattooer and was negative. **Results:** Clinical examination revealed multiple, disseminated skin-colored and slightly erythematous, pruritic papules on the right arm. The rash extended the tattoo's site. According to the patient a dexpanthenol 5%-containing wound-healing ointment was applied approximately 2 weeks anterior to the eruption. Mometasone furoate 1mg/g ointment once daily was prescribed. Patch-testing of the dexpanthenol ointment was indicated. Total remission of the allergic reaction was observed after 5 days. **Conclusions:** ACD is a delayed-type hypersensitivity response to a wide variety of contact allergens, such as tattoo ink or dexpanthenol. Reactions to tattoo ink can occur over time. In our case, due to the negative patch-test result to the tattoo ink, dexpanthenol was thought to play role in the allergic reaction. Literature describes several cases of dexpanthenol sensitivity.

Keywords: tattoo, dexpanthenol, allergic contact dermatitis, patch-test

ULTRASOUND PATTERNS ASSOCIATED WITH PRIMARY OVARIAN ENDOMETRIOMAS – A RETROSPECTIVE STUDY

Sasaran V¹, Alexa-Bad Codruta¹, Puscasiu L²

¹Department of Gynecology II, UMFST G.E. Palade Tg. Mureş

²Department of Gynecology I, UMFST G.E. Palade Tg. Mureş

Background: Ovarian endometriomas represent a benign estrogen-dependent cyst associated with infertility. Transvaginal ultrasound has proven itself as a reliable tool in the diagnosis of endometrioma, but has its limitations. Hence, the final diagnosis is made upon the morphopathological examination. The aim of this study is to investigate if the ultrasound patterns of primary ovarian endometrioma are reliable for conducting a correct diagnosis, as compared to histopathological examination. **Material and methods:** A retrospective study was conducted between September 2006 and May 2019 on 76 patients with presumptive diagnosis of primary ovarian endometrioma, who underwent surgical interventions. We included only female patients in premenopause and examined the following ultrasound features: dimension, the presence of papillary projections/ solid components, uni/multilocular, growth signs, homogeneity, Color Doppler score. The ultrasound findings were compared with the histopathological results. **Results:** The 76 patients with presumed primary endometrioma were divided into two groups: group 1- 68(89,47%) patients with histopathological confirmation of endometrioma and group 2- 8 patients (10,52%) with other pathologies (borderline tumors, mature cystic teratoma, hemorrhagic luteal cyst, fibrothecoma or serous papillary cystadenoma). Uni/multilocular character, homogeneity, growth signs and Color Doppler score did not differ significantly between the two groups. Lower cyst dimension and lack of papillary projections were the only features which were significantly associated with a microscopical diagnosis of endometrioma ($p=0.0098$ and $p=0.0279$, respectively). **Conclusions:** Presence of papillary projections and bigger cyst dimensions are ultrasound patterns suggestive of non-endometrial ovarian tumors, according to this study. Histopathological examination still remains the standard of choice. Further studies need to be conducted on bigger populations, which include post-menopausal patients, with different ultrasound characteristics.

Keywords: ovarian endometrioma, ultrasound patterns, papillary projections

A REVIEW OF SUICIDE IN NEUROLOGICAL DISEASES

Romaniuc Andreea¹, Maier Smaranda¹, Moțățianu Anca¹, Bajko Z¹, Andone S¹, Bălașa Rodica¹

¹Department of Neurology, UMFST G.E. Palade Tg. Mureș

Background: Although the suicide matter is still a taboo subject, it represents an important public health problem with a considerable impact on the overall mortality and morbidity. The purpose of this review was to assess the association between suicide and chronic and acute neurological diseases. **Material and methods:** To achieve our purpose we performed a search on the PubMed and Google Scholar databases using key words such as: "suicide", "suicidal behaviour", "neurological diseases" or "neurological illnesses". The articles endorsed were carefully reviewed for the association mentioned before. **Results:** Most articles support the idea that suicide among people suffering from neurological diseases is more frequent than in the general population. From the acute group of pathologies, a greater risk for suicide was found in stroke, traumatic brain injury and spinal cord injury, as from the chronic group are worth mentioned: multiple sclerosis, amyotrophic lateral sclerosis, epilepsy, migraine, Parkinson and Huntington disease. Aside from the disease itself, the risk for suicide attempt was higher for the patients who associated also psychiatric comorbidities such as depression and lack of social or financial support. **Conclusions:** Bearing the burden of a neurological disease raises the risk of suicidal behaviour. Aside from the specific treatment for each pathology, the management of these patients should also include an evaluation of this risk in order to prevent a tragedy.

Keywords: suicide, neurological diseases, suicidal behaviour

OBSTETRIC RISK FACTORS INFLUENCING THE SEVERITY OF INFECTION-RELATED MATERNAL COMPLICATIONS-GLOSS STUDY

Budianu Mihaela-Alexandra¹, Puscasiu L¹

¹Department of Gynecology I, UMFST G.E. Palade Tg. Mureș

Background: Sepsis is a major cause of severe maternal morbidity and mortality, especially in low- and middle income countries. Worldwide maternal sepsis is the third most common direct cause of death, after hemorrhage and hypertensive disorders. The aim of this secondary analysis was to examine the association between obstetric risk conditions and infection-related severe maternal outcome from endometritis, chorioamnionitis, and abortion-related uterine infection. **Material and methods:** GLOSS was a prospective, cross-sectional study that took place in 52 countries. During a one week observation period (November 27 to December 04, 2017) all pregnant, postpartum or post abortion (up to the 42nd day) women with suspected or confirmed infection were recruited into the study. The obstetric risk conditions examined for each infection were: endometritis: manual removal of placenta, caesarean or instrumental vaginal birth; chorioamnionitis: prolonged or premature rupture of membranes; abortion-related infection: curettage and vacuum aspiration. **Results:** Of the 2850 women enrolled in the study, 64% presented a less severe infection and 35% women had an infection with complications. From the total of 1015 cases of infections with complications, 13% had severe maternal outcomes related to infection. Among women with severe maternal outcome the most frequent complication was endometritis (21%), followed by abortion-related uterine infection (12%) and skin/soft tissue infection (12%). Of the risk factors examined, only caesarean birth amongst women with endometritis was significantly associated with severe maternal outcome (odds ratio 1.74, 95% confidence interval 1.05-2.89). **Conclusions:** The distribution of severe maternal outcomes varies across different infections studies. Despite the well-known association between premature rupture of membranes and chorioamnionitis, the study did not show a significant correlation between premature rupture of membranes or prolonged rupture of membranes and severity of chorioamnionitis. The significant association observed between caesarean birth and severe outcome of endometritis highlights an area to further focus.

Keywords: Maternal Medicine, Maternal Medicine, maternal sepsis, severe maternal outcome, caesarean birth

THERAPEUTIC PLASMA EXCHANGE IN NEUROLOGICAL DISORDERS - A SINGLE CENTER EXPERIENCE

Andone S¹, Stoian Adina², Bajko Z¹, Motataianu Anca¹, Maier Smaranda¹, Barcutean Laura¹, Balasa Rodica¹

¹Department of Neurology, UMFST G.E. Palade Tg. Mureş

²Department of Pathophysiology, UMFST G.E. Palade Tg. Mureş

Background: Therapeutic plasma exchange (TPE) is an extracorporeal treatment applied in many neurological diseases and has been widely used in immune mediated inflammatory neurological disorders. The underlying pathology may be either paraneoplastic or autoimmune in nature, and when the humoral immune system is involved as the main mechanism, TPE can be very effective. **Material and methods:** From our 26 TPE sessions, 74% of cases were performed in men, and 26% in women, for a number of 5 different neurological diseases. The patients had between 3 and 5 TPE sessions, each according to their symptoms severity. In 77% of cases we used a mixed replacement fluid (albumin and plasma). A slight decrease in calcium, magnesium, platelet count and hematocrit were observed, however no significant differences were noted. TPE-related adverse reaction include 1 case of severe plasma allergic reaction, 2 minor allergic reaction, 1 panic attack and 1 hypocalcaemia. **Results:** From our 26 TPE sessions, 74% of cases were performed in men, and 26% in women, for a number of 5 different neurological diseases. The patients had between 3 and 5 TPE sessions, each according to their symptoms severity. In 77% of cases we used a mixed replacement fluid (albumin and plasma). **Conclusions:** Plasmapheresis played a significant role in the quick resolutions of symptoms and proved its utility if started early in the course of the disease. TPE is generally reserved for severe cases in which other therapies have failed, being considered a short-term treatment, but sometimes it may be needed as a maintenance treatment.

Keywords: therapeutic plasma exchange, plasmapheresis, immune mediated disease

COPING MECHANISMS, MEDIATORS IN THYROID DISEASES

Papai Annamaria¹, Lica Melania¹, Mihai Adriana¹

¹Department of Psychiatry, UMFST G.E. Palade Tg. Mureş

Background: Many specialty studies have highlighted an important role of stressors in determining, occurring, and maintaining of thyroid diseases, but little information is available regarding the manner and the mechanism by which these events and stressors mediate thyroid diseases. In the present study we have evaluated the cognitive and emotional coping strategies of people with thyroid diseases, the level of stress experienced by them, at the same time following the relationships between the level of stress experienced and the coping strategies used. **Material and methods:** 42 persons with thyroid disease (31 with hypothyroidism and 11 with hyperthyroidism), aged 33-69 were selected for this study. The sampling method was non-random, pseudo-random or of convenience, using the available participants. In the present study we applied the following tests: Cognitive Emotion Regulation Questionnaire (CERQ), Holmes and Rahe stress scale. **Results:** The coping strategies used predominantly by people with thyroid disease are: self-blame, rumination, positive reappraisal, catastrophizing and blaming others. Coping strategies such as: self-blame, catastrophizing, and blaming others are characteristic to people with hyperthyroidism. Rumination as a cognitive emotional coping strategy is characteristic to all persons with thyroid disease in the targeted sample. Between the rumination and the level of stress experienced a significant positive statistical correlation was observed. Regarding the stressful events experienced by the people with thyroid diseases, it is noted that in 58.13% of the targeted sample got through life events with a level of stress that, according to the applied scale, increases the chances of developing psychosomatic illnesses. **Conclusions:** The experienced negative events increase the stress level of people, and, together with the less proactive coping strategies can be a part of the sources leading to thyroid diseases. Restructuring coping strategies through cognitive behavioral psychotherapies can be an effective alternative way of treating thyroid diseases.

Keywords: --, --, stress, coping strategies, thyroid diseases

ASSESSMENT OF THE LIPIDIC PROFILE AFTER OBTAINING SUSTAINED VIRUSOLOGICAL RESPONSE (SVR) WITH INTERFERON-FREE TREATMENT IN PATIENTS WITH CHRONIC VIRUS C INFECTION

Roman Adina¹, Fofiu Crina¹, Onișor Danusia¹, Brusnic Olga¹, Boeriu Alina¹, Dobru Daniela¹

¹Department of Internal Medicine VII, UMFST G.E. Palade Tg. Mureș

Background: Chronic viral C infection represents worldwide a major cause of morbidity and mortality. Interferon-free regimen represented a major breakthrough due to the associated high rate of sustained virusological response, of over 95%. **Material and methods:** We included in a prospective study over a 6 month period, 25 non-diabetic patients with chronic viral C infection, which fulfilled all the criteria for the administration of Interferon free regimen. We divided the patients into two subgroups: Group A - with mild hepatic fibrosis asessed by Fibrotest (F1-F2), and Group B - with moderate to severe hepatic fibrosis (F3-F4). We performed anthropometric measurements and monitored the serum level of glucose, insulin, LDL-cholesterol, HDL-cholesterol, CRP, fibrinogen, platelet count, A1 apolipoprotein before and at 12 weeks after Interferon-free treatment. **Results:** From our patients, 52% were female. Median age was 65 ± 10 years. 68% of the patients were included in Group B (Fibrotest F3-F4) whereas 32% presented with mild fibrosis and were included in Group A (Fibrotest F1-F2). The mean viral load was 51750 ± 15000 UI/ml. By performing comparative analysis between baseline examination and at 12 weeks after Interferon free regimen, we observed a statistically significant difference in Group B in glucose level (p=0,03) and CRP (p=0,01). In Group A, significant differences were observed in platelet count (p=0,0001), and HDL-cholesterol (p=0,002). **Conclusions:** Even though recent studies regarding the effect of Interferon-free treatment have showed an improvement on glucose level on diabetic patients with chronic viral C infections, no studies have comprised so far, from our knowledge, the impact over the lipidic and metabolic profile after obtaining SVR on non-diabetic patients.

Keywords: chronic viral C infection, hepatitis, Interferon-free treatment, lipidic profile

INFECTIVE ENDOCARDITIS WITH PROLONGED EVOLUTION IN A HEMODIALYSED PATIENT-CASE REPORT

Manasturean Cristina¹, Gliga Mirela², Girbovan Cristina¹, Frigy A², Chiriac Carmen¹, Georgescu Anca¹

¹Department of Infectious Diseases, UMFST G.E. Palade Tg. Mureș

²Department of Internal Medicine IV, UMFST G.E. Palade Tg. Mureș

Background: Infective endocarditis (IE) is a major cause of morbidity and mortality in patients with end-stage renal disease. Hemodialysis requires repeated access to the vascular system via an intravenous catheter or a permanent arteriovenous fistula resulting in frequent episodes of bacteremia. **Material and methods:** Case report: A 48 year old female patient with a history of end stage renal disease on chronic hemodialysis for 5 years, with multiple infections of the left brachiocephalic arterio-venous fistula for which a central venous catheter was inserted through the right jugular vein, was referred to the Infectious Disease Clinic from the Nephrology Clinic, with critical health state, generalized weakness and low grade fever. A transthoracic echocardiography was performed, revealing the presence of a 20/20mm structure adherent to the free wall of the right atrium, near the inflow of the inferior vena cava, suggesting infective endocarditis. Antibiotic treatment with vancomycin and gentamicin was administered after dialysis, however, the patient presented 'red man syndrome', therefor vancomycin was replaced with teicoplanin. A series of blood cultures were made, but without bacterial growth. A culture from the remaining infected fistula was positive for Klebsiella pneumoniae ESBL (gentamicin resistant), for which she received amikacin. The patient developed Clostridium difficile colitis and metronidazole was added to the treatment. **Results:** After almost two months of complex treatment, a decrease in the size of the endocarditic structure was seen at the echocardiography. Following a prolonged and insidious evolution, the patient was discharged after becoming asymptomatic. **Conclusions:** Infective endocarditis (IE) in chronic haemodialysis patients is significantly more common and causes greater morbidity and mortality than in the general population. Our case was a challenging one, with many setbacks, but in the end, with multidisciplinary approach, the outcome was favorable.

Keywords: endocarditis, hemodialysis, infection

MEDICINĂ DENTARĂ (DENTISTRY)

INTER- AND INTRA-OPERATOR RELIABILITY OF SURFACE ROUGHNESS MEASUREMENTS OF DENTAL MATERIALS

Dudás C¹, Józsa Enikő², Molnár D², Kerekes-Máthé Bernadette¹, Mártha Krisztina³

¹Department of Morphology of Teeth and Dental Arches, UMFST G.E. Palade Tg. Mureş

²., UMFST G.E. Palade Tg. Mureş

³Department of Pediatric Dentistry and Orthodontics, UMFST G.E. Palade Tg. Mureş

Background: The roughness measuring units which analyze the degree of roughness of a surface along an arbitrary straight line traced by a stylus across the sample, can give less information regarding surface alterations than 3D surface mapping methods, but they are more accessible. **Material and methods:** Ten light-cured glass ionomer specimens prepared according to the manufacturer's instructions from premeasured unit dose capsules of GC Fuji LC CAPSULE (GC EUROPE N.V., Leuven, Belgium) have been selected. Three previously trained operators measured individually in four diagonals the surface roughness of samples with MarSurf XR1 (Mahr GmbH, Göttingen, Germany) PC-based roughness measuring unit and after ten days the measurements were repeated using the same protocol. The Average Roughness (Ra) surface texture parameter was used at all data collection. Intra-class correlation coefficients (ICC) were calculated for individual and group measurements. **Results:** The inter- and intra-operator reliability of the measurements showed high degrees, the coefficient values being in the good (0.75-0.90) and excellent (>0.90) category of reliability. **Conclusions:** Linear surface roughness measurements of dental materials done with a roughness measuring unit can be performed with high reliability by single or multiple users, however this procedure has its limitations.

Keywords: Medicină Dentară, Medicină Dentară, glass ionomer, surface roughness, reproducibility of results

ORAL HEALTH-AWARENESS OF HUNGARIAN PATIENTS COMPARED TO OTHER EUROPEAN COUNTRIES

Márton Krisztina¹, Madlena Melinda¹, ADVOCATE Team²

¹Department of General Dental Preclinical Practice, Semmelweis University

²Department of Prosthetic Dentistry and Oral Rehabilitation, Semmelweis University

Background: Objective of this study was to assess the oral health-awareness of Hungarians compared to 5 Western European countries' patients: analyzing data obtained by the online Patient Engagement Application (APP) of the ADVOCATE - 'Workpackage 5' program. **Material and methods:** Data of 6873(658 British,2486 Danish,551Dutch,1346German,1139 Irish and 642Hungarian) adult patients'(2948 male, 3925 female, average age:48.54±17.31years) from different dental practices were assessed. Participants filled the online-APP on mobile devices provided by the dentist right after their actual dental visits. Of the 51 questions recently 11 were used, specially related to funding of provided dental care, symptoms and diagnosis and oral health behavior. Pearson's Chi square -test was used for the statistical analysis of all data. **Results:** Health awareness was on significantly lower level in Hungary regarding the source of funding of the actual dental treatment, periodontal examination, searching for new caries; oral cancer screening awareness on the other hand was on higher level compared to the European average. Preferable health behavior regarding oral hygiene and smoking was also on lower level, but considering alcohol consumption it was better in Hungary, compared to Europe, sugar consumption was similar. **Conclusions:** Results show that some factors in health awareness like diagnostic methods and funding sources are less known among the Hungarian patients and less reviewed by the dentists to them, but aware health behavior is at the same level and some factors show to be better than the EU average. Health-education of Hungarian patients needs more support and attention.

Keywords: dentistry, dentistry, oral health, behavior, awareness, diagnosis

EFFECTS OF PSYCHIATRIC DRUGS ON XEROSTOMIA AND SALIVA SECRETION

Kovács Alexandra¹, Márton Krisztina²

¹Department of General Dental Preclinical Practice, Semmelweis University

²Department of General Dental Preclinical Practice, Semmelweis University

Background: Depression and other psychiatric disorders concern significant part of European population. Over the years, the treatment of psychiatric patients has evolved, and as a result several different psychiatric drugs are used to medicate these disorders. Our purpose was to determine the effects of most frequent psychiatric drugs on subjective sensation of oral dryness and whole- and minor saliva secretion in Hungary. **Material and methods:** 361 people were involved in our study: 188 psychiatric patients from Semmelweis University Department of Psychiatry and Psychotherapy and 173 healthy controls from Semmelweis University Faculty of Dentistry. Patients were categorized into 11 groups by the psychiatric drugs they take: serotonin antagonist and reuptake inhibitor, selective serotonin reuptake inhibitors (SSRI), serotonin and norepinephrine reuptake inhibitors, noradrenergic and specific serotonergic antidepressant, SNRI+NASSA, atypical- and typical antipsychotics, Valproate, Benzodiazepin, Lithium, Tricyclic antidepressants. Our questionnaire was designed to determine the subjective presence of orofacial sicca symptoms. Unstimulated whole saliva flowrate (u-SFR) was determined by the spitting method, palatal and labial saliva flowrates were measured by the Periotron method. **Results:** Among medicated men the xerostomia ratios were significantly higher in the following groups: SARI, SNRI, NASSA, SNRI+NASSA and BDZ; among medicated women the xerostomia ratios were significantly higher in the following groups: SARI, SSRI, SNRI, NASSA, atypical, BDZ, lithium, compared to non-medicated men and women. Hyposalivation could only be detected in women TCA group. Among medicated men atypical and BDZ resulted significantly higher minor saliva flow rates; among medicated women BDZ resulted significantly higher, atypical, typical and TCA resulted significantly lower flow rate. Oral hygiene indexes (DMF-T, Silness and Loe plaque index and PPD) were significantly higher in some of the experimental groups. **Conclusions:** According to our results, rate of xerostomia in medicated group was higher than in the control group. Although, the different psychiatric drugs resulted different saliva flow rates.

Keywords: Salivary research, Drug related xerostomia, Xerostomia, Saliva secretion, Psychiatric drugs

EFFECT OF SMOKING INTENSITY ON WHOLE AND MINOR SALIVA SECRETIONS

Demeter T¹, Péntzes Melinda², Márton Krisztina¹

¹Department of General Dental Preclinical Practice, Semmelweis University

²Department of Public Health and Healthcare Management, Semmelweis University

Background: Our aim was to investigate the possible effects of smoking intensity on salivary parameters (whole saliva and minor salivary gland flow rates) among smoker and non-smoker male and female patients in different age groups in Hungary. **Material and methods:** 901 patients (age range: 18-92 years, 58.3% females) were involved in the study, and were categorized into non-smoker (NS), light smoker (LS, 1-10 cigarettes per day \leq CPD), and moderate or heavy smoker (MHS, more than 11 CPD) groups according to self-report. Unstimulated whole saliva flow rate (UWS) was measured by the spitting method, while palatal (PS) and labial (LS) minor salivary gland flow rates were measured using the Periotron method. Data were analyzed using independent samples t-test, and one-way ANOVA at a significance level of $p < 0.05$. **Results:** 35.9% of our sample were smokers (43.4% of males and 30.5% of females). Regarding smoking intensity, 51.3% of females and 60.7% of males were MHS. A significantly lower UWS was measured for MHS females compared to NS females in the age group of 20-29 years ($p = 0.02$). Among MHS males in the age group of 30-39 years, a significantly higher palatal secretion was registered compared to NS and LS groups, respectively ($p = 0.03$). No other significant differences have been recorded in the salivary parameters of NS, LS and MHS males and females in other age groups. **Conclusions:** According to our results, higher intensity of smoking may decrease whole saliva secretion among females in younger age, however, the intensity of smoking does not influence minor salivary gland secretions in most of the age groups.

Keywords: smoking, saliva, minor salivary glands, smoking intensity

MODERN METHODS OF IMAGING EVALUATION DURING THE ORTHODONTIC TREATMENT IN ADULTS

Păcurar Mariana¹, Gânscă Oana¹, Suci V²

¹Department of Pediatric Dentistry and Orthodontics, UMFST G.E. Palade Tg. Mureş

²Materials Science, Universitatea Transilvania

Background: The existence of a large number of adults with fixed orthodontic treatment and periodontal pathologies, in whom the orthodontic biomechanics has to be applied after a careful clinical and radiological evaluation of the periodontal structures, determined us to do an imaging study of the alveolar bone before and after starting the treatment. **Material and methods:** The study was realized at the Department of Orthodontics of the Faculty of Dentistry and The Imaging Center Dr. X-ray of Tîrgu Mureş on a number of 17 adult patients, aged between 30-45, with different types of periodontal disease, orthodontically treated. To determine the bone modifications, the patients were CBCT investigated before starting the orthodontic treatment, T0 and 6 months after applying the fixed apparatus, T1. The next parameters were evaluated: - the distance between the cement-enamel junction CEJ and the apex - the distance between CEJ and the peak of the alveolar bone ridge - the middle thickness of the alveolar bone. We also determined the cranio-facial parameters in transversal anomalies. **Results:** Analysing the 3 parameters of the bone restructuring, we found that there aren't significant differences in the thickness of the alveolar bone between the T0 and T1 moments, in a number of 15 patients (87%) so the orthodontic treatment doesn't influence negatively the width of the alveolar ridge. We found modifications of the distance between CEJ and the apex in 8 patients (41%) which indicate the appearance of a discreet degree of root resorption particularly in the lower frontal group. **Conclusions:** The CBCT imaging evaluation is a modern method which detects the values of the bone parameters, having a prognostic role in the degree of periodontal affectation in the adults with fixed orthodontic treatment. The correlations between cranio-facial alteration and degree of anatomical laterognathia is very important in orthodontic/surgical treatment options.

Keywords: Orthodontics, treatment, imaging, CBCT, cranio-facial anomalies

A CLINICAL STATISTICAL STUDY ABOUT THE USE OF CORTICOTOMY IN ORTHODONTICS

Panainte I¹, Bica Cristina¹, Martha Krisztina¹, Dombi Karina²

¹Department of Pediatric Dentistry and Orthodontics, UMFST G.E. Palade Tg. Mureş

²Department of Pediatric Dentistry and Orthodontics, UMF Carol Davila Bucureşti

Background: Accelerating the rate of tooth movement is desirable to patients because it shortens treatment time and also to orthodontists because treatment duration has been linked to an increased risk of gingival inflammation, decalcification, dental caries and root resorption. Corticotomies, which some orthodontists are currently using to speed up tooth movements, induce a regional acceleratory phenomenon, which provides the biological basis for accelerated tooth movement. **Material and methods:** We realized a clinical study asking the doctor's opinion about this technique. To realize this study, we used a questionnaire, we sent them to the orthodontists and orthodontic trainees. There were 180 questionnaires sent but we got only 124 back. It consisted of ten questions, taking information about doctors: age, sex, the amount of experience in the field of orthodontics and questions about the advantages and disadvantages and the indications of this procedure. The collected data were processed with the student T test. **Results:** The results show that 75% of the respondents know about corticotomy but they don't use it so much because it is an invasive technique. Most of them (80%) think that there are some advantages of using it, especially in adult patients for accelerating the teeth movement. 15% of the practitioners think that the main disadvantage of this technique is the surgical phase and the complications that may appear from this. **Conclusions:** 1. Corticotomy was recently introduced in conjunction with the orthodontic therapy and it is highly recommended in adult patients in order to fasten the movement of the roots through the cortical bone. 2. Although many specialists know about this technique, few of them are using it in their treatments, especially the young doctors.

Keywords: orthodontics, corticotomy, osteotomy, accelerated movement, adult patients

MEDICATION RELATED PERI MANDIBULAR FISTULA - CASE REPORT

Golu MV¹, Pascanu Ionela², Ormenisan Alina¹, Toganel Cornelia³, Petrovan Cecilia¹, Cosarca Adina Simona¹

¹Department of Oral and Maxillofacial Surgery, UMFST G.E. Palade Tg. Mureş

²Department of Endocrinology, UMFST G.E. Palade Tg. Mureş

³Department of Oncology, UMFST G.E. Palade Tg. Mureş

Background: Sunitinib is a multi-targeted receptor tyrosine kinase inhibitor that was approved by the FDA for the treatment of renal cell carcinoma (RCC) in 2006 as first-line and second-line therapy in RCC. Sunitinib directly targets survival and proliferation of tumors expressing VEGFRs, PDGFRs, KIT, or FLT3, while also inhibiting angiogenesis (via inhibition of VEGFRs and PDGFR- α expressed on endothelial cells and pericytes, respectively). **Material and methods:** Case report A 68-year old male was referred to our clinic with a peri mandibular fistula on the right side. Inflammatory swelling, painful lesion, hyperemia, and bleeding was observed, with no sign of pus. The patient was diagnosed 14 months ago with bone metastasis of the right shoulder, renal cell carcinoma metastasis. He received analgic radiotherapy with an 8 Gy, dose and a single dose of zoledronic acid, (i.v. bisphosphonate). Afterward, treatment with Sunitinib (Sutent, Pfizer, India) was started. **Results:** The oral examination, blood test, the bacteriological examination revealed no signs of infection, the only risk factors present were periodontal disease and poor hygiene. Clinical trials revealed the efficacy of Sunitinib on Renal cell carcinoma with tumor necrosis and regression and common side effects like osteonecrosis of the Jaw, fistula, hypertension, gastrointestinal toxicity, diarrhea, fatigue, and skin rash. Because of the influence of Sunitinib on growth factor and revascularization medication-induced Osteonecrosis of the jaw is also investigated. **Conclusions:** Likely causes: dental status, Sunitinib side effect, Medication-Related Osteonecrosis of the Jaw (induced by sunitinib or zoledronic acid) or a combination of these factors?

Keywords: Fistula, Medication-Related Osteonecrosis of the Jaw, Medication side effect

MEDICINĂ PRE-CLINICĂ (PRE-CLINICAL MEDICINE)

ROLE OF ARSB IN COLORECTAL CANCER

Kovacs Z¹, Baniás Laura², Jung I², Gurzu Simona²

¹Department of Biochemistry, UMFST G.E. Palade Tg. Mureș

²Department of Pathology, UMFST G.E. Palade Tg. Mureș

Background: Arylsulfatases are lysosomal enzymes that are able to catalyze the hydrolysis of sulfate esters. ARSB is mostly involved in breaking down glycosaminoglycans (GAG) into dermatan sulfate and chondroitin sulfate. In CRC, it seems that ARSB is expressed in normal colonic mucosa and shows a loss of intensity in tumor cells, with a role in carcinoma invasiveness and metastatic capacity. **Material and methods:** The present study included 45 consecutive cases of patients who were prospectively diagnosed with CRC. ARSB expression were quantified using IHC markers. Cases were classified as showing low or high expression, based on the percentage of positive cells and the intensity of immunostaining. Circulating mRNA was isolated from all 45 patients with CRC, from which 2 ml of intravenous blood was taken one day before surgery. **Results:** ARSB expression was not influenced by tumor localization. Most of the cases (n=33; 73.33%) showed an ulceroinfiltrative aspect, with high expression of the examined marker. ARSB immunorexpression was not correlated with the pT stage, pN stage, lymph node ratio or the degree of tumor. In all of the patients included in the control group (n=45), without inflammatory or tumor disorders, the circulating ARSB gene expression level was higher than one (RQ>1), whereas blood levels lower than one were obtained from the blood of patients with CRC. **Conclusions:** An inverse correlation between the circulating and protein level of ARSB was statistically shown. The apparent contradiction between the level of gene expression and immunohistochemistry of ARSB can be explained by the fact that IHC expression was performed directly from the tumor tissue, whereas gene expression of ARSB was done from circulating mRNA of patients before surgery. The molecular mechanisms underlying the decrease in leukocyte mRNA expression, associated with the contradictory increase in tumor tissue immunorexpression, are still unknown.

Keywords: Arylsulfatase B, Colorectal cancer, Molecular mechanism

MOLECULAR GENETICS OF ACUTE MYELOID LEUKEMIA: FROM GOLD STANDARD ON CLINICAL MANAGEMENT TO RESEARCH. OUR EXPERIENCE.

Tripon F¹, Crauciuc GA¹, Boglis Alina¹, Candea Marcela², Macarie I², Lazar Erzsebet², Banescu Claudia¹

¹Department of Genetics, UMFST G.E. Palade Tg. Mureș

²Department of Internal Medicine III and Family Medicine, UMFST G.E. Palade Tg. Mureș

Background: The aim of the present study was to disseminate our molecular protocol for testing acute myeloid leukemia (AML) patients with several molecular techniques in order to overcome the limitations of each molecular techniques. **Material and methods:** We investigated 170 AML patients from Mureș county for FLT3-ITD, FLT3-D835, DNMT3A and NPM1 somatic mutations by different molecular techniques. All of them being also investigated by Multiplex ligation-dependent probe amplification (MLPA) in order to detect copy number variations (CNVs). Fifteen patients were investigated also by Ligation-dependent RT-PCR (LD RT-PCR) in order to detect gene fusions specific for acute leukemias and two patients by next generations sequencing (NGS). Several SNPs reported as potential prognostic markers, where also analyzed by different PCR techniques. **Results:** FLT3-ITD mutation was identified on 35 patients, FLT3-D835 on 12 patients, DNMT3A on 26 patients while NPM1 mutation on 31 AML patients. Fragment analysis method for FLT3-ITD and NPM1 mutations detect a variant allele frequency (VAF) of 3%. In the last 2 years the average time for reports was 4 working days for the mentioned mutations. CNVs of the DNA were detected in 56 of AML cases. Gene fusions were detected in 4 cases from 15 investigated by LD RT-PCR. NGS analyses detected several variants, most of them being considered somatic mutations or variants with uncertain significance. **Conclusions:** We consider that each molecular technique mentioned is mandatory for AML patient investigation, therefore the patients will be correctly classified and may benefit of personalized treatment. Acknowledgement: This work was funded by the Romanian National Authority for Scientific Research and Innovation, CNCS/CCCDI-UEP Project no. PN-III-P1-1.1-TE-2016-01/1, within PNCDI III, contract no.147 PED/2017 and by UMFST G.E. Palade Târg

u Mureș, Romania

grant number 615/1/17.01.2019 and 15609/13/29.12.2017.

Keywords: AML, FLT3, DNMT3A, NPM1, MLPA, LD RT-PCR, NGS

GLUTATHIONE-S TRANSFERASE POLYMORPHISM, MATERNAL EXPOSURE TO TOXICANTS DURING PREGNANCY AND CONGENITAL HEART DISEASE

Anciuc Mădălina¹, Tripon F¹, Bănescu Claudia¹

¹Department of Genetics, UMFST G.E. Palade Tg. Mureș

Background: Congenital heart diseases (CHDs) are the most common congenital anomalies at birth directly underlying with various genetic factors and environmental exposures. The aim of our study was to evaluate the maternal exposure to toxicants during pregnancy, the influence of Glutathione S-transferase M1 and T1 (GST) gene polymorphism on developing CHD and the risk of isolated congenital septal defects in newborns, such as atrial septal defect (ASD) and ventricular septal defects (VSD).

Material and methods: Using a structured questionnaire on demographics, preconceptional and lifestyle exposure (such as cigarette smoking, alcohol and drugs consumption, caffeine and tea use, and body mass index) we evaluated the maternal environmental exposure to toxicants during pregnancy. GSTT1 and GSTM1 gene polymorphisms were determined by using a multiplex polymerase chain reaction (PCR) technique. **Results:** A total of 74 children with CHD (59.5% male gender) and 86 healthy children (48.8% male gender) were genotyped for the GSTT1 and GSTM1 polymorphisms. No significant differences were observed between these two groups and GSTT1 and GSTM1 genotypes. The environmental toxicants exposure during pregnancy were statistically insignificant for the CHDs etiology, the most frequently reported being caffeine daily consumption or other product like tea or cola. No association was observed between the combined genotypes of GSTT1 and GSTM1 SNPs, maternal environmental exposure and risk of CHDs. **Conclusions:** For the newborns with isolated CHDs, GST T1 and M1 gene polymorphisms has no influence on individual's risk of toxicant exposure during pregnancy-induced disease.

Keywords: Medical Genetics, Molecular biology, congenital heart defects, glutathione-s transferase polymorphism, exposure during pregnancy

INVESTIGATION OF XPF-673C>T GENE POLYMORPHISM IN MYELOPROLIFERATIVE NEOPLASMS

Cosma Adriana-Stela¹, Tripon F¹, Lázár Erzsébet², Macarie I³, Bogliș Alina¹, Crauciuc GA¹, Bănescu Claudia¹

¹Department of Genetics, UMFST G.E. Palade Tg. Mureș

²Department of Internal Medicine III and Family Medicine, UMFST G.E. Palade Tg. Mureș

³Department of Internal Medicine I, UMFST G.E. Palade Tg. Mureș

Background: The hematological neoplasms' susceptibility, may be increased by genetic polymorphisms in DNA repair genes. Xeroderma pigmentosum group F (XPF) is involved in the nucleotide excision repair (NER) system. This study's purpose was to assess the association of XPF-673C>T with the susceptibility to myeloproliferative neoplasms (MPNs) in Romanian population.

Material and methods: A case-control study was performed and comprised 84 patients with MPNs (43 with essential thrombocythemia, 33 with polycythemia vera, and 8 with primary myelofibrosis) and 102 healthy subjects. The genotypes of XPF-673C>T polymorphism were determined by a polymerase chain reaction-based restriction fragment length polymorphism (PCR-RFLP). For the enzymatic digestion of PCR products was used *FastDigest EcoRI*. **Results:** The results did not reveal a statistically association between variant genotypes of XPF-673C>T (TT - variant homozygous genotype and CT - heterozygous genotype) and the risk of developing MPNs: (CC vs. CT: p=0.20, OR=1.57, 95%CI= 0.84-2.93; CC vs. TT: p=0.81, OR=0.79, 95%CI= 0.31-2.03; CC vs. CT+TT: p= 0.37, OR=1.33, 95%CI= 0.75-2.39; C vs. T p= 1, OR=1.004, 95%CI= 0.60-1.67). **Conclusions:** In conclusion, these findings suggested that XPF-673C>T gene polymorphisms might not be involved in the susceptibility of NMPs.

Keywords: myeloproliferative neoplasms, polycythemia vera, essential thrombocythemia, primary myelofibrosis, XPF-673C>T

ELEVATED CALCITONIN SERUM LEVEL IS NOT ALWAYS ASSOCIATED WITH MEDULLARY THYROID CARCINOMA

Szász Emőke-Andrea¹, Nechifor-Boilă Adela¹, Bartha R¹, Borda Angela¹

¹Department of Histology, UMFST G.E. Palade Tg. Mureș

Background: Hypercalcitoninemia is usually known as a marker for medullary thyroid carcinoma (MTC). Several pathologic conditions other than MTC have been associated with increased levels of calcitonin. **Material and methods:** We present the case of a 46-year-old male admitted to hospital for excessive weight loss and thyroid gland enlargement with latero-cercical adenopathies. Imaging studies revealed multiple liver, bone, pulmonary and peritoneal lesions. Due to an elevated serum calcitonin level (235 pg/ml), a thyroid medullary carcinoma with secondary involvement of the liver, lungs, bones was suspected. Consecutively a fine-needle aspiration (FNA) of the thyroid gland and lymphnode was carried out. **Results:** The cytological examination revealed isolated monomorphous small-sized cells with scant or no cytoplasm, hyperchromatic nuclei or with granular "salt and pepper" chromatin. Based on this morphology different from that of MTC, a diagnosis of small cell neuroendocrine carcinoma (Bethesda VI) was made. A biopsy from the liver mass was also performed. On microscopy solid sheets of small tumor cells with ill-defined borders, hyperchromatic nuclei with high mitotic rate was seen, aspects which were very similar to the cytological aspect. On immunocytochemistry these cells strongly expressed Cytokeratin AE1/AE3 and thyroid-transcription factor-1 and focally Synaptophysin and Chromogranin-A. These morphological and immunohistochemical features supported the diagnosis of small cell carcinoma probably metastatic in the liver. **Conclusions:** An elevated serum level of calcitonin is a highly sensitive marker for MTC, but it is not especially specific. In our case the cytology of the thyroid nodules and lymphnodes, as well as the liver biopsy supported the diagnosis of a small cell carcinoma. We should bear in mind that careful cytological examination is mandatory for a correct diagnosis.

Keywords: hypercalcitoninemia, thyroid metastasis, FNA,

SUBTELOMERIC COPY NUMBER VARIATIONS IN PATIENTS WITH INTELLECTUAL DISABILITY/DEVELOPMENTAL DELAY DETECTED BY MULTIPLEX LIGATION-DEPENDENT PROBE AMPLIFICATION ANALYSIS

Boglis Alina¹, Tripon F¹, Cosma Adriana-Stela¹, Banescu Claudia¹

¹Department of Genetics, UMFST G.E. Palade Tg. Mureș

Background: Copy number variations (CNVs), such as microdeletions and microduplications, represent a significant genetic risk for intellectual disability/developmental delay (ID/DD), with a predominance in the subtelomeric chromosomal regions. Currently, array comparative genome hybridization (aCGH) and single nucleotide polymorphism (SNP) arrays are used as the first tier test for the investigation of ID/DD; however when these techniques are not available, multiplex ligation-dependent probe amplification (MLPA) can be widely used to analyze small aberrations. The aim was to detect subtelomeric CNVs in children with ID/DD using MLPA analysis. **Material and methods:** MLPA analysis was performed in 115 children patients with ID/DD with or without congenital anomalies using subtelomeric specific kits, SALSA MLPA P036 Subtelomeres Mix 1 probemix and SALSA MLPA P070 Subtelomeres Mix 2B probemix from MRC-Holland. Prior to the MLPA analysis, the patients were first investigated by karyotype (G-banding). The parents of the children who were found with abnormal results were also investigated. **Results:** CNVs were identified in 22 patients, microdeletions (12 cases) and microduplications (10 cases). The abnormal changes were confirmed in 7 cases involving the following chromosomal regions 16q24, 10q26.3, 7q36.3, 11q25, 17p13.3, 20p13 and 15q26.3, and none of these were inherited from the parents. The patients' phenotype was consistent with those published in the literature associated with the identified CNVs. **Conclusions:** Our findings demonstrate that MLPA analysis is useful and cost-effective in the investigation of CNVs, such as microdeletions and microduplications in ID/DD patients. **Acknowledgment:** This work was funded by the G.E. Palade UMFST of Targu Mures, Research Grant number 615/6/17.01.2019.

Keywords: CNVs, intellectual disability, developmental delay, subtelomeric regions, MLPA

HARMFUL BEHAVIOURS ASSOCIATED WITH A MODERN LIFE STYLE, FROM THE PERSPECTIVE OF PHYSIOTHERAPIST

Neag CI¹

¹Department of Motricity Sciences, UMFST G.E. Palade Tg. Mureş

Background: Our modern lifestyle promotes sedentarism and ineffectiveness when it comes to physical tasks. Every day we choose to employ in a series of harmful physical behaviors, for the purpose of productivity or comfort. The purpose of this paper is to emphasize the most common types of said behaviors and the effects they have on our physical health, from the perspective of a physiotherapist. **Material and methods:** This paper is a systematic review of 18 studies about sedentarism, postural health, spine injuries, smartphone use and effects of prolonged sitting, published in English on the platforms: PubMed and CINAHL, from 2000-2019. We utilized PRISMA guidelines for determining study inclusion/exclusion. **Results:** The main majority of EU citizens (40%) carry out their work while sitting down, and the evidence shows that inadequate sitting for periods longer than 2 hours makes you more prone to postural abnormalities and spine injuries due to excessive and inefficient stress distribution. According to Eurobarometer2018 46% of EU citizens score lower than 2 MET's (The measurement for energy expenditure) and half of them fall in the category of a sedentary life style. Data shows sedentarism promotes lower bone density and muscle weakness which increases the incidence of bone fractures and cardiovascular diseases. Around 90% of EU citizens own a smartphone, with over 47% of them using it more than 1 hour per day. Prolonged use of smartphone is associated with pain in the neck and shoulder, due to forcing a forward head posture. **Conclusions:** Today's society faces a dangerous combination of a forced and at the same time voluntary physically deprived lifestyle. Data shows that the current situation is only getting worse, as technology and policy encourage this trend. If we do not intervene the financial and cultural cost of dealing with the complications that follow will be massive.

Keywords: Modern lifestyle, sedentarism, spine injuries, sitting down, smartphone use

THE OPINION OF EMPLOYEES AND CHILDREN LIVING IN FOSTER CARE HOMES ABOUT ROMANIAN NATIONAL CLEAN AIR LEGISLATION ON TOBACCO SMOKING

Tubák N¹, Ferencz IL¹, Nădășan V¹, Nemes Nagy Enikő¹, Ábrám Z¹

¹Department of Hygiene, UMFST G.E. Palade Tg. Mureş

Background: Objective: To assess the awareness and opinions of children and employees of foster care homes in three Transylvanian counties about the Romanian Clean Air Legislation. **Material and methods:** The assessment took place six months after the implementation of the antitobacco legislation (Romanian Law no. 15/2016), in three Transylvanian counties (Alba, Mures, Covasna) including 59 foster care homes: 173 employees (48 men, 125 women) and 350 children (169 boys, 181 girls). Our research team, which included specialists like doctors, medical assistants, psychiatrists, conducted a survey, with anonymous questionnaire which contained a total of 25 questions. Descriptive statistics were performed using SPSS 22.0 program. **Results:** Among the adult respondents, 29.1% were smokers, while among children smokers represented 26.5%. 97.0% of adult population was aware of the legislation, but only 76.4% noticed any new measures applied in the foster cares. 73.0% of children have heard about the restrictions under the new legislation, while only 61.8% of them have noticed any new measures being taken in foster care homes. The percentage of those who decreased the number of daily smoked cigarettes was 45% among adults, and 17.7% among children. The intention to quit smoking at the time of the survey was 27.1% among adults, and 22% among children. **Conclusions:** The majority of the respondents were aware of the legislation changes and had a favourable opinion about it. On the other hand, less people in the foster care homes noticed any new measures taken in their environment as a result of the clean air legislation.

Keywords: smoking, foster care, antitobacco legislation, adolescents smoking

E-CIGARETTE USE AMONG PUPILS FROM REPUBLIC OF MOLDOVA

Topada Aculina¹, Nădășan V¹, Abram Z¹

¹Department of Hygiene, UMFST G.E. Palade Tg. Mureș

Background: For intervention in the problem of smoking among teenagers, we need to understand the rapidly changing behavior of adolescent tobacco use, which is marked by recent decreases in ordinary cigarette smoking and general increases in the use of electronic cigarettes and other nicotine delivery systems. The aim of the study was to assess the prevalence of electronic cigarette use among 9th grade pupils from Chisinau municipality. **Material and methods:** The study population consisted of the 9th grade pupils from 132 schools located in Chisinau, Republic of Moldova. The study sample included 24 randomly selected schools (7 gymnasiums and 17 high-schools). Data were collected using a self-completed questionnaire, once in October-December 2015 (365 respondents) and again in February-April 2018 (819 respondents). Descriptive statistics were calculated and chi square test was applied to check for significant changes in smoking prevalence from 2015 to 2018. **Results:** The prevalence of lifetime smoking was 45.1% in 2015 and 47.9% in 2018 ($p>0.05$). The most commonly tried alternative tobacco and nicotine products were electronic cigarettes (42.9% in 2015 and 48.7% in 2018), hookahs (17.4% in 2015 and 18.2% in 2018), and cigars (14.9% in 2015 and 17.6% in 2018). There were no significant differences from 2015 to 2018 as far as trying the alternative products ($p>0.05$). Last 30 days electronic cigarettes use was 14.9% in 2015 and 17.5% in 2018. About 18.2% in 2015 and 20.6% in 2018 were likely to try the electronic cigarette. A share of 6.1% in 2015 and 6.7% in 2018 were sure that in the next year they will try electronic cigarettes. **Conclusions:** The study has shown a non-significant increase of the consumption of electronic cigarettes among 9th grade pupils in Chisinau from 2015 to 2018.

Keywords: e-cigarettes, pupils, smoking, Chisinau

AXIN I GENE VARIANTS AND CONGENITAL CARDIAC HEART DEFECTS

Crauciuc GA¹, Tripon F¹, Gozar Liliana², Togănel Rodica², Bănescu Claudia¹

¹Department of Genetics, UMFST G.E. Palade Tg. Mureș

²Department of Pediatrics III, UMFST G.E. Palade Tg. Mureș

Background: Congenital heart defects (CHD) are the most frequent type of congenital heart malformation, being a major cause of childhood mortality. In most cases of CHD, a multifactorial inheritance mechanism is involved, despite the limited knowledge about genetic risk factor. The aim of our study was to evaluate the hypothesis that rs1805105 and rs12921862, two single nucleotide polymorphisms (SNPs) in AXIN I gene, are associated with CHD in children. **Material and methods:** We enrolled 103 pediatric patients diagnosed with cardiac septal defects and/or tetralogy of Fallot and 111 control subjects. Using a real-time polymerase chain reaction, we investigated the genotypes for these two SNPs (rs1805105 and rs12921862) in AXIN I gene. **Results:** The distribution of the wild type genotype, heterozygous and homozygous genotype with variant allele was similar in patients and control group. In the dominant model (heterozygous and homozygous with the variant allele genotype versus homozygous with wildtype allele) and recessive model (homozygous with the variant allele versus heterozygous and homozygous with the wild type allele) insignificant correlation with CHD risk was identified ($p>0.05$). Similar, in the allelic model (variant versus reference allele) the distribution was identical between groups, with no statistical significance for both SNPs. **Conclusions:** Our results suggest that rs1805105 and rs12921862 SNPs of AXIN I gene are not associated with susceptibility to CHD. Nevertheless, a high-resolution analysis like sequencing on a large number of patients with CHD is required to characterize the molecular risk factors for these congenital defects.

Keywords: Genetics, Pediatrics, rs1805105, rs12921862, congenital heart defects

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The 12th Conference of Ph.D. Students and Young Doctors Science and Letters

FILOLOGIE(PHILOLOGY)

THE FIRST "ECHINOXIST" WAVE-DINU FLAMAND

Petrea Laura Alexandra¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: My paper deals with the first echinoxist wave of Romanian poetry and the one who I analyzed is Dinu Flamand, who is one of the most important poets from this period. His first volume is called "Apeiron" and appeared in 1971. Also, he is one of the members who grounded the "Echinox" Magazine. Also, he is a essayist, French journalist, critic and translator. Dinu Flamand was born in Romania, Bistrita-Nasaud county and the fact that he comes from country can be remarked in his poetry because the city seems to fossilize him. A very important book is called "Stare de asediu" because it was written before he was exiled. **Material and methods: Results: Conclusions:**

Keywords: poetry, Flamand, 1971, neomodernism, echinoxism

NUVELISTICA LUI ION AGÂRBICEANU

Fendrihan Gabriela¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: Material and methods: The short story assumes a richer form and a more refined spiritual background, but also a closer order in the sequence of psychological phenomena. The author operates with experiences and his solutions are triggered by beliefs. The topics of the short stories are developed in the form of a lively story from the countryside. Ion Agârbiceanu was one of the most prominent public figures in Romania. He was, as follows, a Greek-Catholic priest in a mountain village, a military priest during the First World War, including in Russia, an archbishop of Cluj and canonical of the United with Rome Diocese of Cluj-Gherla. Ion Agârbiceanu imposes a serious, elegiac tone of the narrative and a discreet participation of the narrator. He appears as a prose writer inspired from other writers' writings. Ion Agârbiceanu spoke his final word in three major stages through Romanian literature. Until the First World War, in *De la țară*, *În clasa cultă*, *În întuneric*, *Două iubiri* and especially in *Arhanghelii* novel, his warm voice is heard in the Carpathians and Transylvania. Numerous stories and novels have been scattered through the magazines of those years: *Chipuri de seară*, *Popa Man*, *Jandarmul*, *Fefelega*, satirical novels *Vremuri și oameni*, which attests to an inner agitation of the writer reaching a patriarchal age. The writer Ion Agârbiceanu, depicts the life of the simple man, living the years of his youth in villages, near the peasants, describing the reality. Ion Agârbiceanu's narration has transparency and simplicity. **Results: Conclusions:**

Keywords: SCOLD Stiinte Umaniste și Aplicate, spiritualitate, spațiul lumii reale

THE JOURNALISTIC WORK OF AUGUSTIN BUZURA

Szilagyi (Hagău) Antoaneta-Adela¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: The journalistic work of Augustin Buzura is a natural addition to his literary one, mainly because his literary works were redacted during the author's active meditation of two novels. In his publications, he sees the concept of an author as a fighter and in journalism a job that implies consciousness, and that is because the author himself is a self-proclaimed truth-seeker, a pillar of sincerity, perseverance and stability of feelings. **Material and methods:** Making himself known in the literary circles in Cluj so far as his pre-graduate years, Augustin Buzura enrolled himself in two directions, after graduating a medical university as a writer, with his 1963 debut volume "Capul bunei speranțe", and as a journalist, the head secretary of the *Tribuna* magazine. **Results:** After the 1989 Revolution, Augustin Buzura involved himself in the political aspects of the country and founded the Romanian Cultural Foundation. During this period, the author published countless articles in the *Cultura* magazine, which was founded in 2004 and

which he ran as a director until he passed away. **Conclusions:** Ever since the beginning, the author has taken the role of being a voice for truth and fundamental values, publishing an authentic view of his times. His belief was that the future of the country would be better if young people were to learn from society's past mistakes. These two concepts are based on the author's faith that without moral integrity, sincerity, fairness, culture is but a transparent gift to humanity.

Keywords: Romanian Literature, Modernist, Augustin Buzura, Journalistic, Work

STYLISTIC PARADIGMS OF THE SERVANT AND AN INDECENT CORPORAL IN THE ARGHEZIAN PAMPHLET

Csala Bianca¹

¹Philology, UMFST G.E. Palade Tg. Mureş

Background: A stylistic paradigm of the domestic frequent in Arghezi's writings, which sends sarcasm to the comic, is the one of the culinary universe (the kitchen), which also appears in the pamphlet "De la Societatea Scriitorilor Români", where their disorganization and inactivity are criticized, through the narrative metaphor. The sarcastic comparison employs along with the culinary one, a reference to a certain animal, the poultry yard, a domestic animal, all to sanction the uncivilized behavior of some writers. Another stylistic paradigm met in Arghezi is the one of the servant, which asks for sarcasm in the pamphlet and belongs to the laundry. In this the literary controversy turns into a quarrel. The image of other stylistic paradigms of the domestic, which combines sarcasm with the comic, belongs to other environments, such as the hospital, the train station, the slum, the small shop, the circus, etc., all these being used by the pamphleter for the sanction by descending into the ordinary, common. The descent into the household can also be added a last bolgie (compartment / stage of the eighth circle of Dante's inferno) of the pamphlet, a bolgie with references to indecent body, such as: anatomical decomposition, eroticism, excretions physiological. Going so deep into the inferno of the pamphlet, even the pamphlet's clothes seem to smoke and dispel the disgusting scent, full of horror. For the Arghezi pamphletist, any reference to the body biologist takes the context in his pamphlet the function of degradation. **Material and methods: Results: Conclusions:** The main objective remains the cultural event with its protagonists, its great adversaries, whom Arghezi punishes in a fictional way through the pamphlet.

Keywords: Ştiinţe Umaniste şi aplicate, Şcoala Doctorală de litere, paradigms, indecent body, comical, sarcasm, domest

MARIN PEDA - THE NOVELISTIC BEGINNINGS OF THE "OBSESSIVE DECADE"

Popa (Olah) Georgia Daniela¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: My initial plan in elaborating this work was to emphasize the effect of Marin Preda's writings on the public of the time, a writer who didn't fit the party ideology, being a novelist who obstructed the development of socialist realism.

To further clarify the appearance and political background in which the illustrious writer has performed his activity I brought to the fore that writing the novel "Ana Rosculeţ", Marin Preda begins to enter the nuances of socialist realism, to subordinate itself to the ideas drawn up by the proletcultist period. Literary criticism considers this novel as one that respects the rules drawn by socialist realism and that it is a work that was born after long participation with other writers and with the Communist Party.

On the other hand I wanted to emphasize the attitude and the modest preparation, as a teacher who studied attentively the articles in the press of the time in relation to his first published book and tries to apply the advice received. **Material and methods: Results: Conclusions:** As a result of this decision he writes a series of novels that comply with the rules dictated by proletcultism: Desfăşurarea, Ferestre întunecate, Îndrăzneala.

In the continuation of the study I will bring into discussion some important details of these novels, considered by the society of the time as true writings of the respective epoch.

Keywords: Marin Preda, proletcultism, novelistic, socialist realism, ideology

STRATEGII NARATIVE ÎN PROZA LUI MIHAI SIN

Pașcan Ancuța-Loredana¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureș

Background: Material and methods: Mihai Sin is one of the writers who can be framed in the chapter of the prose of everyday life, his books have produced moderate reactions every time, without producing too much stir. The writer considers writing a responsibility, maybe that's why he inspires so much confidence in his stories. The prose writer does not seek the circumstance in which the cause produces ineluctable effects and does not even propose to justify the acts of his heroes. The predilect subjects we encounter in Mihai Sin's fiction are: disease, death, old age, insomnia, fatigue, mental aggression, the attempt of the characters to know their own boundaries and overcome them, but these attempts are always abandoned, the indignation that the characters experience, and not least, the failure to which they are subjected. His characters are "common people" without too many qualities. The end of the stories leave room for interpretation, which gives his stories greater credibility for their integration into the epic substance. The appearance of the "narrator auctorial" gives the novelist the way out of the pattern when it comes to the connection with the inner torment of the characters in the volume. This technique is found in most of Mihai Sin's works. The cultivation of short prose was a concern of the writer, and he understood that short stories mean the need for topicality, direct and immediate approach to daily realities. At the same time, this literary genre represents an intermediate stage towards novel writings. **Results: Conclusions:**

Keywords: auctorial narrator, Short prose, the prose of everyday life,,

THE MOTIF OF THE FLYER IN THE GREEK-LATIN LITERATURE AND ITS METAMORPHOSES IN THE ROMANIAN LITERATURE

Someșan (Crișan) Laura Alina¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureș

Background: The centre of this thesis is represented by the motif of the Flyer, between the ancient concept and the current vision. **Material and methods:** Since from the beginning, I wanted to give a clear look and definition of the myth concept, bringing together the basic visions so far with a perspective that takes into account the current evolution of civilization. The term myth, as well as the myth itself, is an optimal ground for redefining, refreshing and allowing for an assembly of what we know so far, making it possible to make a personal contribution to this. The movement of the motifs and characters is surprising, there being usually an infusion and a recreation of them, respectively a nuance according to the specific ethnoses. The myth of the Flyer is one of the fundamental myths. The Flyer, the erotic myth, the personification of the invasion of the puberal instinct, finds its true folkloric equivalent in the field of superstitious stories. **Results:** The folkloric myth of the Flyer symbolizes the appearance of the feeling of love in girls in the age of adolescence. The feelings of young girls are triggered by a fantastic character, with a great seductive power, who appears at nightfall, makes them fall in love with him, then he leaves, leaving behind him only melancholy and whirl. It is like a sickness, a passionate love, a passionate insatiable love that consumes and destroys the soul of man. I analyzed the myth and the motif from the ancient literature perspective, the Romanian folklore and literature. **Conclusions:** This thesis brings together the Greek vision of the concept of Eros with the Latin one, the way in which a legend was taken from the Greek folklore into the Latin literature and the way the motif of the Flyer is perceived in the Romanian folklore and literature.

Keywords: Scoala Doctorala de Litere, Stiinte Umaniste si Aplicate, myth, motif, Flyer,folklore, literature

THE BEGINNINGS OF POETRY AT RADU SERGIU RUBA

Isciu (Uilean) Raluca - Nicoleta¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureș

Background: Radu Sergiu Ruba writes poetry and prose and belongs to the category of contemporary writers who publish after 1980. His editorial debut is represented by the volume of poems Spontaneitatea înțeleasă, appeared at the Romanian Book

Publishing House, in 1983. For his volumes, the writer has been rewarded with numerous awards. The present study aims to interpret and analyze some of poems, from Radu Ruba's first two volumes: Spontaneitatea înțeleasă (1983) and Iluzia continuă (1988). **Material and methods:** Bibliographical References/ Referințe bibliografice: Biedermann, Hans, Dicționar de simboluri, Vol. I, Editura Saeculum I. O, București, 2002 Boldea, Iulian, Scriitori români contemporani, Editura Ardealul, Târgu Mureș, 2002 Lefter, Ion Bogdan, Scriitori români din anii '80-'90, Dicționar bio-bibliografic, Volumul III, P-Z, Editura Paralela 45, Pitești, 2001 Ruba, Radu Sergiu, Spontaneitatea înțeleasă, Editura Cartea Românească, București, 1983 Ruba, Radu Sergiu, Iluzia continuă, Editura Cartea Românească, București, 1988- poetry- reading- analyze- interpretation **Results: Conclusions:** The spontaneity of the creation spreads over the entire artistic creation of the author and makes it recognizable in the postmodern lyrical landscape

Keywords: Letters, Literature, poetry, Romanian literature, lyrical, literature, contemporary poetry

SLAVICI'S ACTIVITY AT

Cercel (Cioban) Iustina Camelia¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureș

Background: After the celebration of Putna (1871), Slavici considers it necessary to set up a magazine that contributes to the national unity and that drives the writers towards the collection and processing of folk literature. The magazine appears in a period marked by a series of social-political upheavals, managing to resist by assuming a political role, doubled by a literary one. The appearance of the magazine "Tribuna" at Sibiu (April 14/26, 1884) imposes a new artistic direction, by renouncing Latinism and reviving the Romanian literature in a period of stagnation, by exploiting the folk inheritance of ~~XXXXXXXXXXXXXXXXXXXX~~ the "People's Library" of the "Tribuna" will play a defining role in the development of literature in this area, by publishing representative works (stories, anecdotes, folk legends, fairy tales) that will contribute to the awakening of the interest for culture, especially in rural areas. **Material and methods:** Bibliography: 1. Bălan, Ion Dodu, Ioan Slavici sau roata de la carul mare, Editura Albatros, București, 1985 2. O. Boitoș, Activitatea lui Slavici la "Tribuna", Cluj, 1927 3. Brădescu, Steliana, Slavici sau iubirea ca mod de viață. Relația umană ca loc geometric al prozei lui Ioan Slavici, Prefață de Mircea Anghelescu, Institutul European, Iași, 2011 4. Breazu, Ion, Literatura Transilvaniei Studii. Articole. Conferințe, Casa Școalelor, București, 1944 5. Chițimia, I. C., Studii și cercetări de istorie literară și folclor, an V, nr. 3-4, Editura Academiei, 1956 6. Danciu, I., Maxim, Ioan Slavici în perspectiva criticii actuale, Editura Tribuna, Cluj-Napoca, 2006 7. Marcea, Pompiliu, Ioan Slavici, Editura pentru Literatură, București, 1965 8. Pop, Dumitru, Folclorul literar al Tribunei, în Studii de istoria folcloristicii românești, Baia Mare, Editura Umbria, 1997 9. Torouțiu, I. E., Studii și documente literare, II, Institutul de Arte Grafice Bucovina, București, 1932 **Results: Conclusions:**

Keywords: letters, literature, folk literature, "Tribuna" magazine, national unit

AN EXCURSION THROUGH GABRIELA ADAMEȘTEANU'S SHORT STORIES. A CASE STUDY.

Danciu (Olaru) Florina Georgiana¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureș

Background: Abstract: Dispatched in a superficial manner to a marginal area, without representing the foreground of the works of Gabriela Adameșteanu, her short stories were rather overshadowed, being treated in a evasive manner by the critics. The short stories of Gabriela Adameșteanu have therefore been received by the public with scepticism, and have been associated with a type of monochord literature, which does not distinguish itself in any other manner but by the reiteration of some monotonous themes, worthy of being integrated in the neorealism Mircea Iorgulescu was talking about. Today, a series of young literary critics (one can mention here Daniel Cristea-Enache, Paul Cernat and Șerban Axinte) deal with the (re)visiting of this promissory texts, managing to demonstrate that the substance of Gabriela Adameșteanu's short stories lies within the narrative valorisation of the characters' internal moods. Encompassing theories concerning characters' configuration and the report instituted between text and reality, we have noticed that the suspense of the short stories of Gabriela Adameșteanu (and, at the same time, the narrative amplitude) is to be found within the internal reality of the character, making its way through the contrast between quietness and restlessness, through

the struggle of a panicked consciousness. **Material and methods: Results: Conclusions:**

Keywords: Literature, Literatură, analyticalpsychological prose, internal probing, p

NATURALISTIC ELEMENTS IN ROMANIAN LITERATURE

Crisan Oana Carina¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: Naturalism implies the exact observation, the documentation that paints life, nature with all its conditions. Naturalists reveal the ugly, present in reality, but the ugly is as educative as the beautiful, since that is the way the bourgeois moral is defied, and the flaw, the hypocrisy, the decomposition are given away. **Material and methods:** After the first world war, the restricted universe, unhappiness and intropsection are specific. The naturalism is heading for unusual elements appeared from enigmas. This evolution discovers vital impulses and fatality. The novelty is the moral experience in which the community lives and portrays the ravages caused by illness and mental devastation. The atmosphere is pessimistic and the degradation is caused by the power of money. There are described pathological precesses, the symptoms of diseases, death and biological changes. The description of diseases gives expression to restlessness and the sick humanity moves in a closed universe. **Results:** Naturalistic elements are found in the work of Ioan Slavici, Liviu Rebreanu and Hortensia Papadat Bengescu. **Conclusions:** The dominant idea of Naturalists is the idea of Unlike the French Naturalism that does not offer the possibility of saving any of the characters. The Romanian Naturalism compensates through lyricism and a disguised way of journalistic processing either in the line of reportage or in the discursive affection.

Keywords: Scoala Doctorala de Litere, Stiinte Umaniste si Aplicare, naturalism, naturalistic elements, the interwar pe

PROBLEME DE ŞAH ÎN "DRUMUL ASCUNS" - HORTENSIA PAPADAT-BENGESCU

Marian Denisa¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: The aim of this paper is to highlight Hortensia Papadat-Bengescu's relevance as a writer and as the creator of the modern Romanian novel. Hortensia Papadat-Bengescu is an excellent connoisseur of people, intelligent, lucid, having a bold syntax, attacking the deepest problems of life. **Material and methods:** I lectured "Ciclul Hallipilor" to compare and analyze "Drumul ascuns" with the other works in the volume. **Results:** Following the methods applied, it resulted that "Drumul ascuns" is a clear, logical book, with no mistakes, or details without meaning, no gesture without explanation. Everything is connected, everything is tight and is heading for a necessary imperative denouement. It is a logical construction. **Conclusions:** The art and the technical ability with which Hortensia Papadat-Bengescu keeps this low temperature all the time, maintains the sanatorium atmosphere, imposing it, and spreads blankets of peace over all the scenes.

Keywords: balzacianism, interwar, details, novel, authenticity

EMIL BOTTA - UNIVERSUL LIRIC

Cordoş Alexandra¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: Emil Botta's poetry is a poetry of a great existential coordinates, in wich life, death, truth and beauty are the symbols of his poetry. His lyric is grounded on deep questions. His poetry is full of mask, the nature shows a spectaculum mundi in wich we become actors from spectators. On can acknowledge an imagination free of any coercion, an internal drama of a man, a struggle of a man with himself. **Material and methods:** Material:1. Emil Botta, *Scrieri*, Editura Minerva, Bucureşti, 1980. Iulian Boldea, *Istoria didactică a poeziei româneşti*, Editura Aula, Braşov, 20053. G. Călinescu, *Istoria literaturii de la origini şi până în prezent*, Editura Minerva, Bucureşti, 19824. Radu Călin Cristea, *Emil Botta despre frontierele inocenţei*, Editura Albatros, Bucureşti, 19845. Doina Uricariu, *Apocrife despre Emil Botta*, Editura Cartea Românească, Bucureşti, 1983 **Results:** Emil Botta's poetrys illustrates a series of dramatis personae which represent the doubles and masks of the lyrical ego. **Conclusions:** His universe can be defined by

tragic, sarcastic and delicate humour and contain some of individual experience and internal moving.

Keywords: Filologie, poetry,, death, vegetal, symbols

DECAY AND RAISING IN ANTON COSMA`S COMEDY

Constantinescu Paula-Mădălina¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: Critical situations had arisen from the comedy "Vizita bătrânilor domni" and it shows us the problems which the political regime faces before 1989. Transforming everything into a shape of comedy it is meant to offer the public a not so gloomy atmosphere by leaving the irony to fulfill its purpose until the end. The characters with comical names and important functions in the village of Loboda are the ones who make up the monography of the Romanian village after the Second World War. Behind the problems that are following the shortcomings of the C.A.P, a new concern of the old generation regarding the future is developing. Gogoloş is a wise character and perceive things in a pragmatic way, by criticizing the female characters that are fighting for superficiality. So, Anton Cosma emphasizes the conflict between the generations, as well as the desire for rapid process of urbanization of the village, by looking at the true values. Also, comedy is a good opportunity to observe the desire for self-improvement for own condition and perceiving the negative features as positive ones, and in this case the truth prevails only for Gogoloş. **Material and methods:** Cosma Anton, Teatru, Prefaţă de Ela Cosma, Editura Argonaut, Cluj Napoca, 2010 Cosma Ana, Scriitori români mureşeni, Dicţionar bibliografic, Cosma Anton, Biblioteca Judeţeană Mureş, 2000, p. 38 Cosma Anton, Teatru, în revista Vatra, nr. 3, anul 1981, p. 18 Cosma Anton, Tîrgu Mureş Opţiunea pentru comedie, în revista Vatra, nr. 12, anul 1982, p. 14 Cosma Anton, Valentin Silvestru Elemente de caragialeologie, în revista Vatra, nr. 2, anul 1983, p. **Results: Conclusions:** Therefore, out of the desire to form the perfect picture, the female characters even turn to the divine service in order to save the critical situation of the census, revealing other new features of character that will amaze us.

Keywords: naivety, conflict, generations, truth, wonders

GEO BOGZA - THE BEGINNINGS OF SURREALISM AND THE DREAM

Rusu Teodora¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: Geo Bogza is part of the group of writers organized around the magazine "unu", a magazine that will lay the foundation of surrealism in our country. Even if, in the beginning, the magazine does not declare itself of surrealist orientation, the direction approached and the articles published within it place the magazine in the sphere of the powerful negative and revolutionary current. Although in our country surrealism appears rather late in comparison with the rest of Europe (the peak phase of surrealism is reached between 1945 - 1947, when, outside, the current is already starting to fade), however, it can be seen that the writers has the need for novelty, change. So, the departure from the classical models causes the writers to seek the new in all forms and to try to synchronize with outside literature and culture. **Material and methods:** 1. Cernat, Paul, Vase comunicante. (Inter)fețe ale avangardei românești interbelice, Editura Polirom, Iași, 2018 2. Claudiu Soare, Ghidul avangardei europene, Editura House of Guides, București, 2004. 3. Iulian Cătăliu, Avangarda literară și visul. Studiu literar despre implicațiile fenomenului oniric în definirea avangardei literare românești, Editura Universității Transilvania, Braşov, 2011. 4. Marin Mincu, Avangarda literară românească, Editura Minerva, București, 1983. 5. Steinhardt, N., Geo Bogza un poet al Efectelor, Exaltării, Grandiosului, Solemnității, Exuberanței și Patetismului, Editura Polirom, Iași, 2011. **Results: Conclusions:** A central element of surrealism that finds its place also among the writings of the people grouped around the „unu” magazine and especially among those of Geo Bogza, is the dream.

Keywords: surrealism, dream, revolt, absurd, eroticism

MAGICAL REALISM AND POSTCOLONIALISM IN SALMAN RUSHDIE'S NOVELS

Bratfalean (Bacain) Adriana¹

¹Filologie, UMFST G.E. Palade Tg. Mureş

Background: This study takes rise from the statement that magical realism is often regarded as a postcolonial literary device. As a literary phenomenon, magical realism existed in the troubled areas of the world. Many of Salman Rushdie's novels merge the miraculous with the everyday life and blend the fabulous with the historical reality in order to portray the vision of the Occident on the Orient and the never-ending tragedies caused by the absurdity of politics. The study aim is to analyze the narrative technique of magic realism used by Salman Rushdie to represent the reality in a word of fiction, from a postcolonial point of view. **Material and methods:** The research methodology is analysis. **Results: Conclusions:** The findings of this study are that, by using the narrative technique of magic realism, Salman Rushdie's novels bridge the Occident's and the Orient's living experiences.

Keywords: Filologie, Filologie, Rushdie, magical realism, postcolonialism, politic

LIFE DURING COMMUNISM:NOSTALGIA AND RESENTMENT

Sigartău Simona¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: Life during communism: nostalgia and resentment At the social level, a real change of actors is remarked. Revolution brings a new organization of society. The working class is disbanded as importance in organizing the society. If during communism, the role of the worker was impossible to ignore, now the worker is forced to ask, claim, become an actor who has been denied his role, change that will bring frustration and a long string of dissatisfaction. These changes bring a number of reactions, and the Romanian literature captures human types expressing feelings of nostalgia or revolt against living during communism. This report between old and new becomes an important theme in Romanian literature after 2000. **Material and methods: Results: Conclusions:**

Keywords: ..., .., novel, communism, nostalgia, resentment

GENERAȚII RECESIVE VERSUS GENERAȚII CATALIZATOARE

Ciocan (Bâzu) Anamaria Laura¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: In order to introduce the dominant character of the structure of the feminine figure in the Romanian literary phenomenon called douămiism, we thought about connecting the past with the present from a comparative perspective and to anchor the theoretical and also practical perspective in highly important and necessary studies for this thesis, and in order to define feminine typology in the course of time, but also in the 2000 prose, we considered it a necessity to start with the historical context of the occurrence of literature at the beginning of the XXIst century. Thereby, this presentation refers to the first chapter of the thesis which is conceived to start with a parallel between the recessive literary generations and the catalytic ones in Romanian literature and to record expressly the affiliation of the 2000 Romanian writers to the catalytic generation, a generation called desperados generation (Bogdan Alex. Stănescu), the generation of children made in polenta (Dan C. Mihăilescu), necro generation (Ruxandra Novac), zerozeciști (the press of the years 2000). **Material and methods: Results: Conclusions:**

Keywords: Școala Doctorală de Litere, Șt. Umaniste și Aplica, Școala Doctorală, Generații recesive versus Generații catalizatoare

I. NEGOIȚESCU'S ACTIVITY AS A STUDENT

Cocan Alexandrina¹

¹filologie - philology, UMFST G.E. Palade Tg. Mureș

Background: Ion Negoïtescu was a student at University from Sibiu and he appears in the Romanian cultural space, featuring as an essayist, reviewer, critic, poet and proser. Over the years he publishes many valuable studies with innovative directions in magazines, such as: "Saeculum", "Time", "Romanian Nation", "Literary Circle Magazine" etc. The most important part of his activity is Sibiu's Literary Circle Manifest, which gave birth to a new literary group led by Negoïtescu. In the group's magazine, he succeeds to publish texts about personal observation or about writers like: George Bacovia, Lucian Blaga, Vladimir Streinu and others. These studies were improved during the time and republished, but Negoïtescu has mostly maintained his point of view.

Material and methods: Results: Conclusions:

Keywords: I. Negoïtescu, Sibiu Literary Circle, magazine, articles, reviewer

THE INITIATION SCENARIO IN ION BARBU'S POEM

Pintilie Oana¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureș

Background: The central element is the child who, with curiosity, comes into contact with another dimension, beyond the immediate reality, home of the deep universal or social mysteries. This option could be justified by the closeness of the child to the original, primarily status, connection maintained by the specific innocence. The immaculacy of childhood, the lack of knowledge specific to the age, subtly intermingles with the necessity of fulfilment, thus triggering the existential crisis that will determine the ripening of the naive child. Although it is seen as children's literature, the profound meanings it carries, as well as the specific literary techniques, propel it into a separate category of complex literature, which wishes to restore the mystery and magic, sending the reader beyond reality, towards the primary senses of the being. **Material and methods: Results: Conclusions:** The innocent play of a child, which unfortunately has tragic effects, becomes an initiation route, an experience of profound knowledge, a deep thought on the essence of life and death, it represents an adventure of training and improvement supported by symbolic and paradigmatic events.

Keywords: --, --, initiation route, essence of life, reflection, lif

ISTORIE(HISTORY)

ASPECTS REGARDING THE ATTEMPTS OF THE ROMANIAN CLERGY IN MOTIVATING THE ROMANIAN SOLDIERS OF THE AUSTRO-HUNGARIAN ARMY DURING THE FIRST WORLD WAR

Farcas C¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: The following paper analyzes some aspects of how the patriotism of the Romanian soldiers evolved during the First World War, using as sources sermons of priests and newspaper articles. In the first two years of war, the patriotism promoted in sermons and speeches was linked to the dynasty and to the person of Emperor Franz Joseph, from whom the soldiers and those behind the front were expecting good leadership and reward for fighting and war effort. The clergy urged the parishioners and the soldiers to submit to the emperor, but his death, combined with the failures on the battlefield, the reforms of the young emperor Carol, the entry into Romania of the war on the part of Entente, created resentments and sensibilities among the soldiers and the population. **Material and methods:** Materials: archives and newspapers; the newspaper *Telegraful Român*, the magazine "Biserica și Școala", sermons. Methods: text analysis, on which a qualitative study was carried out on the information identified and found in the proposed topic **Results:** Following the analysis, I highlighted the evolution of the speeches and sermons of the priests and the high hierarchs during the war, which resulted in the gradual weakening of the attachment to the empire. **Conclusions:** The Austro-Hungarian authorities did not trust the Romanian soldiers too much, so during the war, the authorities used state propaganda and in the Orthodox and Greek-Catholic Churches in Transylvania. The high clergy promoted a message based on submission and patriotism. Gradually, by the end of the war, the idea of patriotism was called into question in the context of the Austro-Hungarian Empire losing the war and breaking up.

Keywords: clergy, morale, soldiers, patriotism, sermons

IOAN GHERASIM, A LIFE IN SUFFERING FOR AN IDEAL

Berar Al¹

¹Department of Histology, UMFST G.E. Palade Tg. Mureş

Background: Abstract. Ioan Gherasim is one of the hundreds of legionaries who went through prison as a result of being member of the Legionary Movement. He was born on July 30, 1921 in Bogata locality in the area called Căndărăi, located in the outskirts of Gheja village, from his parents Ioan and Ana. Between 1937-1938 he came in contact with the Legionary Movement but only as a sympathizer, without being a member. During this period he learned legionary songs, met the legionaries from the Brotherhoods of the Cross from Blaj. As a member of the F.D.C. Gherasim Ioan participated in the Legionary Rebellion from Blaj. After the Rebellion, he continued the activity within the Legionary Movement, underground. In May 1942 he was sentenced to 5 years of hard imprisonment for participating at the Legionary Rebellion in Blaj. After his release from prison he continued his high school studies, graduating high school in 1947. In the autumn of 1947 he was admitted to the Faculty of Agronomy in Cluj. There he activated in the group of legionary students from Cluj, an organization considered subversive by the authorities, known as the Legionary Student Center (LSC). He was sentenced to 15 years of hard work for unification against the social order. According to the criminal record and the report prepared by the Security organisation in 1956, he spent his detention years in the following prisons: Cluj (January 1949 - November 1949), Pitești (November 1949 - December 1951), Gherla (several times), Jilava, Oradea (February 1955 - June 1955) and Aiud. After 1990 he campaigned for obtaining the rights for the former political prisoners, being the president A.F.D.P.R. Cluj branch. **Material and methods: Results: Conclusions:**

Keywords: communism, prison, persecutions, legionnaires, Ludus

ARLUS - APPROACH TO THE SOVIET PEOPLE. CULTURE IN THE FIRST YEARS OF COMMUNISM IN A LOCALITY IN TRANSILVANIA

Berar Marcela¹

¹Department of Histology, UMFST G.E. Palade Tg. Mureş

Background: Abstract. The cultural revolution was considered a stage of transition towards communist society. According to Soviet theorists of the 1960s, the existence of the cultural revolution is confined to the general laws after which the development of socialism is guided. In 1953, in each region of Romania, besides the Regional Party Committee, there was a section of propaganda and agitation which had a subordinate Sector of literature and art on which the cultural sections of the district People's Councils depended. The nationalization of 1948 meant the end of publishing houses, printing houses and private libraries. The Romanian Association for the strengthening of Connections with the Soviet Union (ARLUS) was established at the initiative of some leftist intellectuals in the house of Constantin Parhon teacher on October 20, 1944. Officially, the purpose was to get to know each other and promotion of Romanian-Soviet friendship. In fact, RACSU was a tool of Sovietization / Russification of Romania. In Luduş commune and in Gheja village, which belonged to it, two RACSU groups were operating. In addition to RACSU, the following cultural and / or religious associations operated in Luduş in 1948: The Greek-Catholic Women's Association "Saint Mary", the Association of Roman-Catholic Women, the ASTRA Association, the RACSU Association and the Union of Protestant Reformation Women. The cultural events organized in that period in the Luduş commune were influenced by the spirit of the cultural revolution. The locality aspired to the title of town after the process of industrialization and urbanization started by the communists concurrently with the cultural revolution. **Material and methods: Results: Conclusions:**

Keywords: Ludus, communism, revolution, culture, ARLUS

FROM THE FIRST WRITINGS TO THE APPEARANCE OF THE FIRST SCHOOL MANUALS

Ciula C¹

¹History, UMFST G.E. Palade Tg. Mureş

Background: The appearance of the first written texts in Romanian language, had a preliminary role for the preparation of the first Romanian school book that appeared in Alba Iulia in 1699. Although we are witnessing a reform in the true sense of the word, this was not an educational reform, it was rather a religious reform that irreparably influenced the education of the people. We are talking about the education of the people because at that time there was no educational system in the way as we imagine it today. The leaders of the society cared about education when they needed the lower class of society. One thing is very important and we have to keep it in our mind and this is the fact that with the religious reform, the people become interesting for those who lead, and with this movement, the leaders realize that they also need the people. **Material and methods: Results: Conclusions:**

Keywords: History, History, education, school books, first written texts in Romanian language, religious reform,

THE SECOND GREEK-CATHOLIC CURACY OF THE SECULY

Tătar E¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: The second Greek-Catholic curacy of the Seculy Bibliographic study Between 1940-1944 the administrative situation from Transylvania was described in a different manner by the Romanian historiographers on one side, and Hungarian historiographer on the other side. Hungarian journalist, Ferenczy György, a well-known critic of the interwar hungarian politics, kept criticizing that political class and their action regarding the situation in Transylvania. Milton G. Lehrer, press correspondent on the minorities probleme, was treating this subject in the same manner. The first paper published in the Communist period, in 1947, was written by Kovács György. This paper presents the harmony between romanians and hunagrians in the begning of the Communist period and accuses both interwar Romanian parties and Hungarian nobility. This problem becomes important again in the 80's, when the writers focus on the violent acts. The hungarian literature treats these acts very concis. Lately, in the 90's and

00's, this subject is presented in more details considering the military, economic, social and cultural components. **Material and methods:** - **Results:** - **Conclusions:** -

Keywords: Transylvania, 1940-1944, Curacy, Romanian, Hungarian

VENICE AND TRANSYLVANIA IN THE INTERNATIONAL CONTEXT OF THE SIXTEENTH AND SEVENTEENTH CENTURIES

Cosma L¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: Abstract Chronologically framed, between the loss of Cyprus (1570) and Candia (1669), the references wish to highlight the elements (similarities and differences, continuities and discontinuities, direct and indirect actors) that have shaped the relations between Serenissima and Transylvania. Serenissima and the Principality faced political, diplomatic and economic reconfigurations and withdrawals, imposed by the position of European political actors in the context of the "Atlantic revolution", of the Reformation and CounterReformation, and Catholic Reformation. They were part of seemingly different worlds. Venice was part of a western, Mediterranean ,Italian, and Catholic world, very strong economically, politically and culturally, while Transylvania, was located in the central-eastern area, at the contact between two cultures and mentalities, the GreekSlavic and Roman-Germanic, ethnically diverse, which marked its specificity and evolution. In the 16th-17th centuries, European political, military, diplomatic changes took place that reverberated in Venice and Transylvania. Thus, the pole of economic, financial , political, military and diplomatic power, had obviously transferred from the south, towards the northwest, to the Atlantic. There was a change in the way states were organized. While in the sixteenth century the great states prevailed (Spain, the Ottoman Empire), in the seventeenth century, the efficiency criteria impose the system of middle, centralized states (France, England, the Netherlands). European policy was marked by the continuation of the Ottoman ascension to the center of the continent. Becoming involved in the European balance and entering into competition with the Habsburg Empire or Poland, the Ottoman actions affected Venice and Transylvania. Although it appeared that the Peace of Augsburg (1555) brought an end to the religious war in the German world, however, the heightened animosity generated the Thirty Years War (1618-1648). While Venice was little affected by the religious conflict, Transylvania was caught in the whirlwind of political-military actions. **Material and methods:**

Results: Conclusions:

Keywords: Venice, Transylvania, Relationship, History

UNDER THE EDUCATION ETHOS: SCHOOL FOR THE ROMANIANS IN TRANSYLVANIA IN THE 19TH CENTURY

Tibuleac Anda-Florina¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: The education ethos characterizes the region of Central Europe in terms of the modernization ideas. We are talking about a common ethos that has penetrated all social classes, different from the ethos of Protestantism and Capitalism specific to the West. **Material and methods:** The revolution of 1848, being part of the European revolution of the same year, was the expression of the revival of Romanian national consciousness. For Romanians from Transylvania in the 19th century, the ethos of education was considered a chance to gain the independence manifested in their eagerness to set up schools in Romanian language, or even to set up a Romanian university. The intellectuals of the time, Simion Bărnuțiu, Andrei Şaguna, Avram Iancu, George Barițiu and others, have mentioned in the numerous speeches and petitions the significant role of education in national emancipation. **Results:** These claims were the expression of the need to modernize the Romanian society through culture and connection to the Western models. **Conclusions:** The predominantly agrarian society in central Europe has come a long and sinous path of transformation. Thus, the ethos of education represented for Romanians from Transylvania in the 19th century, a chance of gaining independence by establishing educational institution in Romanian language. Although this desire remained unfulfilled, the ethos of the education awakened in the Romanian consciousness the national spirit.

Keywords: History, History, ethos, education, Romanians, 19th Century, Transyl

OCCULTISM AND ROMA ALTERITY

Puia Ecaterina ¹

¹Department of Sciences and Letters, UMFST G.E. Palade Tg. Mureş

Background: In many cultures, magic is an integral part of everyday life. The group known as the Rom is no exception, and they have a strong and rich magical heritage. Gypsies believe in existence of God, whom they call Del, and Satan, whom they refer to as beng. Traditionally, Gypsy culture is steeped in superstition, holding to belief in charms, amulets, curses, bad luck, and ghosts. **Material and methods:** The methodology used for this research would be best described as a combination of social analysis and imagological-iconographic study with influences of feminism and postcolonialism. The ethnicity and gender of the Gypsy woman are major factors in her identity and influence how she is understood and interpreted by her presence. **Results:** The image of the gypsy combines a series of equally grotesque and humiliating clichés. The result is a caricature of Gypsy intended to devalue. Of course, with distrust and contempt that generates, gypsy exert a disturbing and fascinating attraction, because it symbolizes mystery and even more connected with the world of desire and sensuality. We do not like it for what it is, but for the projected images about it. Predictor and clairvoyant of luck or misfortune is an archetype in all civilizations of the world. Since ancient times, surrounded by an aura of mystery and magic, these gypsy women, called Drabarni ("drab", "give a cure") in the Roman language, practice several forms of divination that they transmit to the Gadji world (non-gypsies, others). **Conclusions:** The aim of this article is to describe holllisticaly the social organization of a particular group of rom, as call drabarni or fortune tellers. Also, I hope with my study about Romani identity and imagology, perhaps unrealistically for some, I would not failed to demonstrate the complexity of Rom character and the unique qualities of their way of life.

Keywords: History, History, Roma culture, gypsie woman, drabarni, occultism, a

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