Under the Auspices of the University of Medicine and Pharmacy CAROL DAVILA **Volume 14 (17) Supplement 2019**

ACCREDITATION B+ National University Research Council (CNCSIS)

MÆdica
a Journal of Clinical Medicine

Supplement

Congress of the University of Medicine and Pharmacy CAROL DAVILA

(October 10th-12th 2019)

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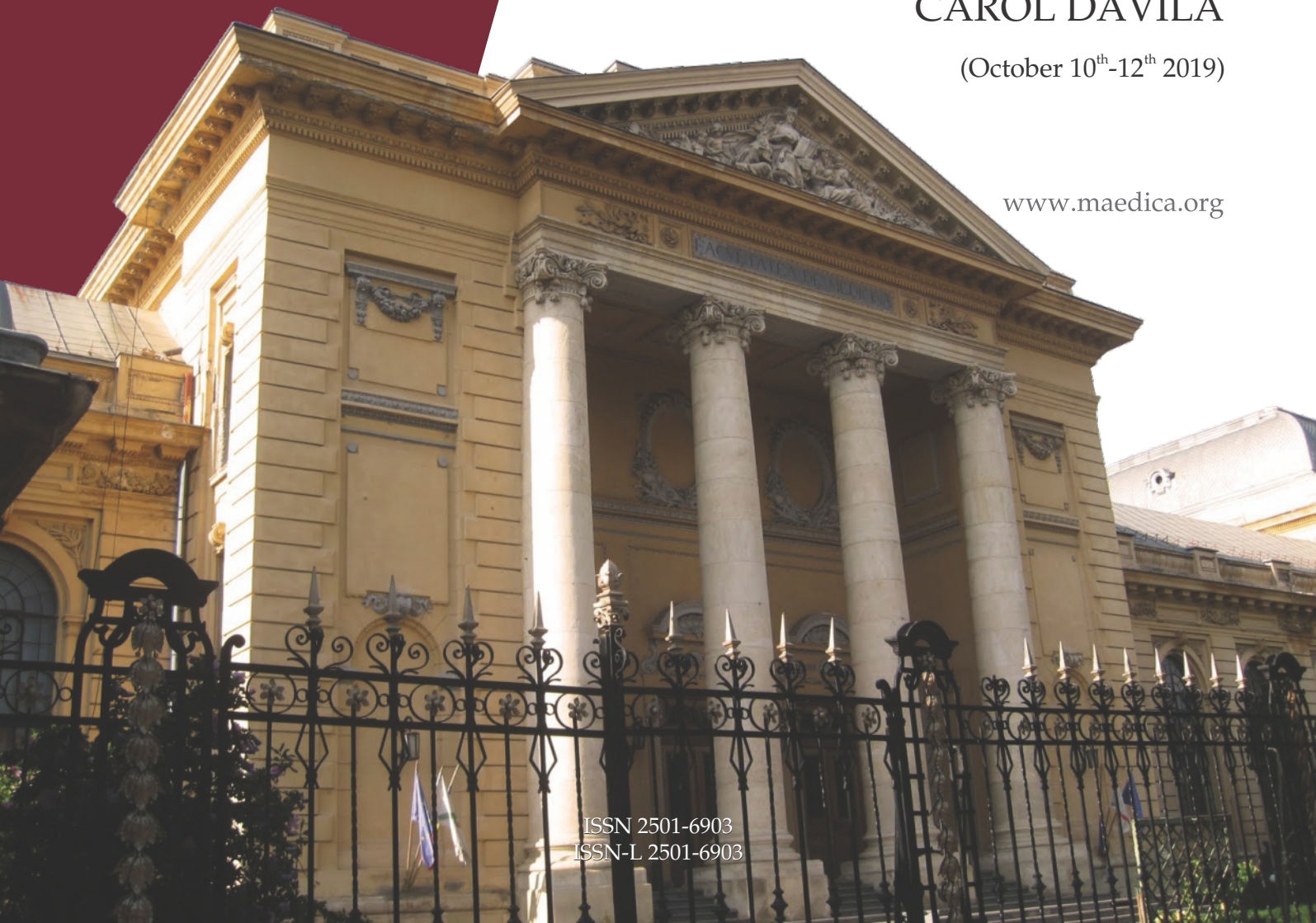

ISSN 2501-6903
ISSN-L 2501-6903

Volume 14 Supplement 2019

MÆdiCA

a Journal of Clinical Medicine

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PUBLISHER: MEDIA MED PUBLICIS

Address of editorial staff:
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Mædica J Clin Med.
www.maedica.org
ISSN: 2501-6903
ISSN-L: 2501-6903

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Abstracts of the posters exposed at the Congress of the University of Medicine and Pharmacy Carol Davila, Bucharest

(October 10th-12th 2019)

INIȚIERE. EVOLUȚIE. EXCELENȚĂ

DIN 1857

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Perspective interdisciplinare

EDIȚIA A VII-A

PALATUL PARLAMENTULUI / 10 - 12 OCTOMBRIE 2019

PHARMACY

ID 25 Principles of Green Chemistry Applied in Obtaining Schiff Bases with Potential Therapeutic Effect

Alexandra Teodora Bordei (Telehoiu)[1], Diana Camelia Nuta[1], Miron Teodor Caproiu[2], Florea Dumitrascu[2], Irina Zarafu[3], Carmellina Daniela Badiceanu[1], Carmen Limban[1]

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Objectives: The azomethine functional group of the Schiff base structure is considered to be a versatile pharmacophore in the design and development of bioactive compounds. The purpose of this work was to find a microwave synthesis pathway to obtain Schiff bases, starting from carprofen hydrazide, knowing that carprofen is a non-steroidal anti-inflammatory drug, included in the class of propionic acid derivatives, that inhibits both COX-1 and COX-2. Microwave synthesis was chosen in order to reduce reaction time, and the risk of side reactions, to increase yield and purity of the final compounds.

Methods: A mixture of (2RS)-2-(6-chloro-9H-carbazol-2-yl)propanohydrazide (carprofen hydrazide) and substituted aromatic aldehyde, in methanol absolute, in the presence of catalytic amount of glacial acetic acid was subjected to microwave irradiation, using a Biotage 2.0 microwave synthesizer. The method included pre-stirring for 5 minutes and then irradiation for 25 minutes, at a temperature of 90 °C. The final product was recrystallized from isopropanol: water 1: 2.

The chemical structures of the new compound were characterized by IR and NMR (1H, 13C) spectroscopy.

Results: We obtained new Schiff bases, (EZ)-N'-substituted-benzylidene-(2RS)-2-(6-chloro-9H-carbazol-2-yl) propanohydrazide. The results of FT-IR, 1H NMR and 13C NMR spectral analysis confirmed the proposed structures.

Conclusions: Novel Schiff bases could be synthesized using a microwave method. The chemical structures of the compounds were confirmed using NMR and IR spectroscopy. This can be the basis for obtaining a new class of compounds, using a rapid, sensitive and more economic synthesis pathway.

ID 76 The Influence of Critical Quality Attributes of Raw Materials on the Quality Target Product Profile of an Oral Dosage Form Containing a BCS II API

Paul Dumitrascu[1,2], Elena Anghel[2], Alina Ivancencu[2], Valentina Anuta[1], Mihaela Ghica[1], Lacramioara Popa[1], Cristina Dinu-Parvu[1]

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Objective: The objective of the study was to determine the impact of the critical quality attributes (CQA) of active substance (API), excipients and packaging material on the Quality Target Product Profile (QTPP) of an oral dosage three strength proportional formulation containing a low solubility, high permeability (BCS Class II) active substance, by evaluating alternative manufacturers and sorts.

Materials: Pilot and industrial batches of the same qualitative and quantitative formulation were manufactured by wet granulation. The quality of API, excipients and packaging materials were evaluated according to European Pharmacopoeia monograph. The impact of critical quality attributes of three active substance (such as particle size distribution, solubility, and polymorphism) on the impurity profile and in vitro dissolution profile of the finished product was also assessed.

Furthermore, the impact of particle size distribution of two different sorts of the main filler were also evaluated in correlation to the uniformity of content and tablet aspect.

The influence of two alternative packaging materials – cold sealing Aluminum foil and PVC/PVdC, was determined during the stability studies in ICH condition for the finished product.

Results: Difference in terms of physical parameters for the three manufacturers of API were observed. However, these differences did not impact the quality profile of the finished product. No significant changes correlated to the differences of API critical quality attributes were observed during ICH stability studies.

However, the particle size distribution of the main filler have influenced the in vitro dissolution profile and on the finished product aspect.

Conclusions: It can be concluded that physical differences between the API manufacturers do not impact the Quality Target Product Profile. Furthermore, based on the results, the two sorts of filler are not interchangeable.

ID 141 IL-10 to IL-6 Ratio as a Relevant Inflammation Biomarker for Diabetes Mellitus

Anca Ungurianu[1], Anca Zanfirescu[1], Denisa Margina[1], Ruxandra Danciulescu-Miulescu[2], Daniela Gradinaru[1]

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Objectives: The aim of this study was to assess the inflammatory status of type 2 diabetes mellitus (T2DM) patients by determining the serum levels of interleukin 6 (IL-6) and 10 (IL-10), as well known inflammatory and anti-inflammatory cytokines. Also, we wanted to explore the usefulness of the IL-10 to IL-6 ratio as an inflammatory status biomarker in clinical practice.

Materials and methods: Our study included 68 subjects from National Institute of Diabetes, Nutrition and Metabolic Diseases N. Paulescu in Bucharest, Romania. They were divided into two groups: a T2DM study group (n=52) and a control group (n=16). Routine biochemical parameters were determined from subjects' serum, along the serum levels of IL-6 and IL-10 (ELISA techniques) and we also calculated the IL-10 to IL-6 ratio.

Results: Glycemia and triglyceridemia were significantly higher for T2DM patients compared to control, although their lipid profile was within normal range due to their chronic hypolipemiant treatment.

Patients in the study group were overweight, with a BMI significantly higher than control, which can contribute the advancement of chronic low-grade inflammation. Moreover, BMI was directly correlated to IL-6 levels (r=0.342, p=0.036).

No significant differences were noticed for the serum levels of the two measured cytokines between the two groups, although IL-6 was lower (p=0.083) and IL-10 was higher (p=0.090) for T2DM patients. However, the IL-10/IL-6 ratio was significantly higher for the diabetics, underlining the compensatory effects trying to limit the enhancement of their characteristic inflammatory burden.

Conclusion: The results of our study highlight the complex alterations of cytokine synthesis and secretion in T2DM patients, along a potential clinical usage of the IL-10 to IL-6 ratio as a relevant biomarker in evaluating their inflammatory status.

ID 152 Synthesis, Characterization and Antineoplastic Assessment of New Oxazole-5-(4H)-Ones and Their Corresponding 1,2,4-Triazin-6(5H)-Ones

Elena-Valentina Rosca[1], Gina Manda[2], Ionela-Victoria Neagoe[2], Theodora-Venera Apostol[1], Lucian Iscrulescu[1], Laura-Ileana Socea[1], Elena Pahontu[3], Constantin Draghici[4], Stefania-Felicia Barbuceanu[1]

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Objectives: Five-membered heterocyclic compounds from the 4-arylidene-oxazole-5(4H)-one class proved to exhibit antitumor and anti-inflammatory effects. These compounds are important intermediaries for the synthesis of triazinones, six-membered heterocycles that possess antitumor activity. Therefore, we aimed to synthesize new oxazolones and triazinones derivatives bearing a diarylsulfone fragment, another pharmacophore center that has various pharmacological properties, in order to investigate the antitumoral activity.

Methods: 5(4H)-Oxazolones have been obtained from the reaction of N-acylated glycine containing a diarylsulfone fragment in acetic anhydride and in the presence of natrium acetate. New 1,2,4-triazin-6(5H)-ones were synthesized through the reaction of oxazolones with phenylhydrazine, in acetic acid and natrium acetate. The new structures were confirmed by NMR, IR and MS spectroscopy.

The *in vitro* antitumor activity of the new compounds (5-40 μM) was assessed in cancer lines, such as B16F10 mouse melanoma by the MTS reduction test (indicative of metabolically active cells) in conjunction with the LDH release test (indicative of cell membrane integrity).

Results: New 4-arylidene-oxazole-5(4H)-one derivatives were synthesized by cyclization and condensation of N-acylated glycine with aromatic aldehydes. 1,2,4-Triazin-6(5H)-ones resulted through a ring-opening and recyclization reaction of oxazolones with phenylhydrazine. The compounds were obtained in moderate yields, in a relatively short reaction time. The spectral data validated the new structures.

The investigated compounds decreased at lower concentration (5 μM) MTS reduction by tumor cells, but lost their activity at higher concentrations. They have a cytostatic action as MTS reduction was not paralleled by an increase of LDH release.

Conclusion: Some new heterocycles from oxazolone and triazinone classes were synthesized. The structures of these compounds were confirmed by

spectral analysis. According to the in vitro study, some of them decrease melanoma cells proliferation, hence showing promising antitumor activity.

ID 169 Synthesis, Crystal Structure, Antimicrobial and Antioxidant Activity Evaluation of Metal Complexes with Salicylaldehyde-Derived Compound

Gina Lupascu[1], Sergiu Shova[2], Stefania-Felicia Barbuceanu[3], Diana Carolina Ilies[3], Mihaela Badea[4], Aurelian Gulea[5], Doina Draganescu[6], Cristina Elena Dinu-Pirvu[7], Elena Pahontu[8]

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Objectives: The wide range of biological activities like antimicrobial, antiviral, antioxidant, cytotoxic, expressed by transition metal complexes with Schiff base ligands made them to be a main subject that researches focus on.

This work presents the synthesis, determination of the composition, structure, physicochemical and biological properties of manganese, cobalt, nickel, palladium, copper coordination compounds with Schiff base derived from salicylaldehyde.

Method: Synthesis of the Schiff base ligand was carried out by the condensation of salicylaldehyde with 2-chloro-5-(trifluoromethyl)aniline, in the molar ration 1:1. Obtaining complex combinations was based on the interaction of this ligand with vasious salts of physiological metal ions. The composition and structure of these compounds were determinated on the basis of data from elemental and thermal analysis, magnetic susceptibility measurements, IR, 1H, 13C NMR and UV-Vis spectroscopy. In addition, the structure of the ligand, copper and palladium complexes has been determined by single-crystal X-ray diffraction analysis. The free ligand and metal complexes were tested for their in vitro antimicrobial activity using the successive dilution method. Also, the antioxidant activity of these compounds was investigated by ABTS·+ method.

Results: The composition and structures of the new complex combinations were confirmed by the physicochemical analyzes performed. In all complexes,

the ligand acts as mononegative bidentate, coordinating to the metal ion through the azomethine nitrogen and phenolic oxygen atoms. The composition of coordination polyhedron of central atom in these compounds is different.

The antioxidant proprieties' investigation revealed that by coordinating the ligand to nickel and cobalt, the biological activity will be the best. The antimicrobial data given for the tested compounds allowed us to state that the metal complexes generally have a better activity than the free ligand.

Conclusions: The study makes an important contribution in designing novel metal complexes with Schiff bases, with antimicrobial and antioxidant activity.

Acknowledgments: UMFCD_PFE_23/2018_

SURGICAL SPECIALITIES

ID 221 Silver Dressing - a New Innovative Adjuvant Method for Chronic Ulcers

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Objective: Venous ulcer is responsible for more that 70% of chronic ulcers of the lower limb. It decreases patients' quality of life and the productivity at work places, being weakening and sore. These wounds are becoming a public health issue. The management of treatment of the venous ulcers is based on healing the wound and avoiding recurrence. The aim of this paper is to evaluate the silver dressing efficacy of healing the wounds after skin grafting of chronic ulcers.

Method: A prospective study of 38 patients with venous ulcers were treated in the Plastic Surgery Department during a period of eight months. Inclusion criteria were chronic venous ulcers older than 3 months. The patients were divided in two groups, of 19 patients each. The surgical intervention (excisional debridement and skin grafting), was performed for all the patients, after the formation of the granulation tissues, on sterile wounds. In the study group, the patients' lesions with skin grafts were covered with a tulle dressing containing silver and in the control group, with a non-medicated paraffin gauze dressing.

Results: For the study group, the silver tulle was changed for the first time after 5 days and after that was checked every 3 days in aseptic conditions until the grafts were integrated. The skin grafts were totally integrated after 10-12 days and the donor site wounds were healed in 7-8 days without any complications, with reduced pain in all patients. In the control group, the grafts were integrated after 15-17 days and the donor site lesions re-epithelialized in 14-15 days, donor site bleeding appeared in 21 cases.

Conclusions: Venous ulcers had a favorable outcome after the administration of antibiotic therapy, surgical debridement and coverage with a skin graft. Nowadays, silver dressings are becoming an viable option for healing the wounds after skin harvesting.

ID 127 Prognostic Factors of Short-Term Mortality for Patients with Congenital Diaphragmatic Hernia

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Objective: The purpose of this study is to identify postnatal prognostic factors for short-term mortality among patients with CDH.

Methods: A retrospective review was performed in a single tertiary healthcare institution, including the patients with CDH admitted from 2010 to 2018. Multiple logistic regression was used in order to identify postnatal predictors of short-term mortality (<90 days post diagnosis) for these patients. Maternal age, gestational age, birthweight, Apgar Score at 1 minute, associated cardiac anomalies, blood gas analysis, the need for preoperative vasoactive drugs or NO, and liver herniation were the factors taken into account when building up the prediction model.

Results: A number of n=37 patients were included in the study. Among them, 20 (54%) were boys, while 17 (46%) were girls. Ten patients (27%) had clinically significant associated anomalies, out of which 8 (21%) were cardiac defects. The overall survival rate 90 days after the diagnosis was 49%. Six (16%) patients died prior to surgery. Among the survivors, 2 had grade III and one had a grade IV postoperative complication, according to Clavien-Dindo classification. Low-birth weight (<2500 g, 2 vs. 8, p=0.05), Apgar Score at 1 minute ≤7 (7 vs. 16, p=0.03), and the need for nitric oxide administration at the time of admission to the hospital (3 vs. 14, p=0.01) showed significant differences between survivors and nonsurvivors (p value for the model F-test=0.02, R2=63.71%).

Conclusions: Accurate predictors allowing risk-stratification are needed in order to develop targeted care strategies. Several postnatal prognostic factors of short-term mortality for patients with CDH were identified. Further studies, including larger cohorts of patients, will allow the external validation of this prediction model.

ID 178 Timing of Antibiotic Prophylaxis for C-Section: between 30 and 60 Minutes before Skin Incision vs. after Cord Clamping

Gabriela Ionescu, Claudia Mehedintu, Elvira Bratila, Lavinia Iftene, Francesca Francu

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Background: It's well known that invasive procedures are associated with a lot of risks. One of them and also one of the biggest challenges in the practice of obstetricians are surgical site infections. They can be caused by many factors such as bacteria or intraoperative exposure time.

Lately the number of women who choose vaginal birth decreased in behalf of those who choose C-Section. This fact led obstetricians to look for different solutions to decrease the infectious risk, such as diminishing intraoperative time or administration of prophylactic antibiotics. Which is why antibiotics are frequently used in Obstetrics and Gynecology both for treating some infections or to prevent their occurrence.

Objectives: This current literature review focuses on obtaining a better understanding regarding the right moment of administration the prophylactic dose of antibiotic in C-Section. The global research efforts have been done to reduce surgical site infections and postoperative morbidity and also to favor a faster healing of the patient.

Method: A systematic review of 11 articles from NCBI and other additional publications was undertaken. The studies were reported between September 2008 and December 2017.

Results: Based on the level of evidence, publication date and relevance to the research question, 11 articles were selected and carefully reviewed. All of the selected articles met the inclusion criteria. Those woman who received antibiotics preoperatively were less likely to show infectious morbidity as compared with those who received antibiotics after cord clamping. When comparing prophylactic intravenous antibiotic administration in woman undergoing cesarean delivery, there was a reduction in composite maternal infectious morbidity (risk ratio (RR) 0.57, 95%, confidence interval (CI) 0.45 to 0.72, high quality evidence) which was specifically due to the reduction in endometritis (RR 0.54, 95%, CI 0.36 to 0.79, high quality evidence) and wound infection (RR – 0.59, 95%, CI 0.44 to 0.81, high quality evidence) in those that received antibiotics preoperatively as compared to those who received antibiotics after neonatal cord clamping.

Conclusion: Overall the literature suggests that the infectious risk decreases if the antibiotic dose is administrated with 30 minutes-1 hour before skin incision. The risk of endometritis was reduced by 42% and the risk of the surgical site infection by 37% in those woman who received antibiotics preoperatively as compared to those who received antibiotics after cord clamping.

ID 227 Intraoperative Surprise after Bariatric Surgery

Radu Mihail Mirica[1,2], Mihai Ionescu[1], Alexandra Mirica[3], Octav Ginghina[1,2], Razvan Iosifescu[1,2], Claudiu Ungureanu[1], Andrada Spanu[1], Clarisa Birlog[1], Alina Stan[1], Nicolae Iordache[1,2]

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Introduction: Given the large number of obese patients and the increasing number of surgeries for obesity, patients who have undergone a metabolic surgery intervention should report this information whenever they are hospitalized for any type of pathology.

Aim: Starting from this information, we propose to present a special clinical case aimed at such a patient, a former obese who underwent a metabolic surgical intervention.

Materials and methods: A 32 years old male presented to the emergency unit with dull pain in the right iliac fossa, nausea and smooth muscle defense in the right iliac fossa.

Results: Taking into account the identified symptoms: pain in the right iliac fossa, leukocytosis, liquid in Douglas (fine blade of liquid in Douglas visible by ultrasound), we proposed a presumptive diagnosis of acute appendicitis. We practiced the exploratory laparoscopy that identified: Meckel diverticulum attached to the anterior abdominal wall perforated with fishbone. The operation was completed with mechanical resection of the Meckel diverticulum

Conclusions: Fishbone passed the sleeved stomach, jejunum and ileonum without any injury. It is good to know preoperatively what assembly or what surgery the metabolic surgery presents to the patient. Exploratory laparoscopy is the first intention to avoid surprises encountered intraoperatively and, in some cases, a laparotomy.

ID 231 Surgical Management of Lung Colorectal Metastases. Our Experience

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Objectives: Metastases from colorectal cancer develop in 40 to 60% of patients. The most common sites of metastases from colorectal cancer are the liver and the lung. Between 5 and 15% of colorectal cancer patients develop lung metastases. If left untreated, patients with lung metastases have a median survival of less than 10 moths and a 5-year survival rate of less than 5%. We present an up to date review of the literature regarding the current practice of pulmonary metastasectomy and our experience in the multidisciplinary management of colorectal cancer patients who are proposed for pulmonary metastasectomy.

Patients and methods: A retrospective analyses was performed at our centers from January 2005 to January 2019. All patients that were operated in our departments for pulmonary colorectal metastatic disease were included in the study.

Results: About one hundred interventions for pulmonary metastases were performed for 90 patients. Data regarding demographics, operative approach, number of metastases, extent of resection, morbidity, mortality and follow up are presented.

Conclusions: Although there is no randomized trial to support the benefit of the pulmonary metastasectomy in colorectal patients, there are many reports that show the potential benefit and feasibility of the metastasectomy in selected patients. The selection of patients who can benefit from this type of surgery has to be well-balanced, in a multidisciplinary approach in high-volume centres.

ID 251 Iatrogenic Radial Nerve Palsy Following Management of Humeral Shaft Fractures: More Common than You Think

Vlad Carbunaru, Ana Maria Oproiu

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Overview: Radial nerve injury after humeral shaft fractures is the most common peripheral nerve injury associated with long bone fractures. The incidence of primary radial nerve palsy associated with fracture has been well documented in the literature and it is generally agreed that a period of observation is appropriate. There is no real consensus, however, with regard to secondary radial nerve palsy, particularly when it is iatrogenic.

Objective: The aim of this study was to analyze the causes that lead to secondary damage of the radial nerve and to discuss the results of reconstructive treatment. Single-center retrospective interventional cases series.

Material and methods: Seven cases with secondary radial nerve palsy following humeral shaft fractures, during 2016-2019 were reviewed. Patients were diagnosed based on clinical examinations, ultrasonography, electromyography, or nerve conduction velocity.

Results: During each operation, the location and type of nerve damage were analyzed. During the reconstructive treatment, neurolysis, direct neurorrhaphy, reconstruction with a sural nerve graft or tendon transfer was used. The results of the surgical treatment were statistically significant and depended on the time between nerve injury and revision/reconstruction surgery, type of damage to the radial nerve, surgery treatment, and type of fixation.

Conclusions: The potential risk of radial nerve neurotmesis justifies an operative intervention to treat neurological complications after a humeral fracture. Adequate surgical treatment in many of these cases allows for functional recovery of the radial nerve.

PRECLINICAL SPECIALITIES

ID 114 Effect of DMSO on Cell Electroporation - Evaluation by Single-Cell Fluorescence Method

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Aim: Exposing of cells to controlled electric pulses has been proved to increase membrane permeability, enhancing the transport of drugs, chemicals and proteins. Cell electroporation has been the focus of many studies working towards cancer treatment by electrochemotherapy or irreversible electroporation, as well as cardiac tissue non-thermal ablation or DNA vaccination. In this work we studied the influence exerted by the cryoprotectant Dimethyl Sulfoxide (DMSO) on the cellular uptake level and kinetics of fluorescent Propidium Iodide (PI) subsequent to cell electroporation.

Method: B16F10 attached murine melanoma cells were electroporated in sucrose-based buffer containing PI (an unpermeant dye which becomes highly fluorescent when linked to nucleic acids). Different DMSO concentrations were used from 0 to 1.5% (v/v). The emission of the fluorescence was measured in real-time (at 615 nm), over a period of 10 minutes, using RatioMasterD-104 C PTI System, adapted to an inverted fluorescence Zeiss microscope. Single cells with long diameter parallel to electroporation electrodes were selected for measurements. 30 seconds after the starting of the PI fluorescence recording, one electric bipolar pulse of 800 V/cm amplitude, 100 μs duration and 5 μs between positive and negative deflexion was applied. The time course of measured fluorescence was fitted exponentially and the rate constant was normalised to size-related cell parameters - cell surface area and cell projected diameter with respect to the electrodes.

Results and conclusions: The presence of DMSO in the electroporation buffer decreased the rate constant of PI uptake, the differences being statistically significant (one-way ANOVA test) starting from 0.5% (v/v). DMSO clearly modulates the membrane electropermeabilization yield, with a possible "all-or-none" behaviour which remains to be proved. Experiments using more refined steps of DMSO concentrations and different pulse parameters are ongoing.

ID 211 Should We Screen Hidden Carriers? HPV16 -18 Infection in Young Male Patient

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Objective: Penile cancer is a rare condition, with complex etiology, developing usually in older age groups. According to recent studies, more than 40% of all penile cancers are HPV-linked, with incidence rates increasing in younger men. Our objective is to draw attention over the HPV infected men that may develop an invasive lesion during early adulthood and the following consequences.

Materials and methods: We report a rare case of penile carcinoma in a 35-year-old patient presenting for two elevated masses located on penile glans and shaft, surgically excised and sent for histopathological examination. The specimens were address to the pathology department, fixed in 4% formalin. After macroscopic examination and grossing, the tissue samples were processed histologically, embedded in paraffin blocks, sectioned 2-micrometer-thick and routinely stained with Hematoxylin-Eosin mounted on glass slides.

Results: The histopathological examination of the first sample revealed an ulcerated lesion involving the epidermis, manifesting hyperortho/parakeratosis, acanthosis, hypergranulosis papillomatosis and focal binucleation, reported as condyloma. The second specimen showed an invasive proliferation forming keratin pearls composed of moderately differentiated and poorly differentiated areas, diagnosed as pTa1 squamous carcinoma. The treatment of stage I penile cancer consists in surgical and radio-therapy. A partial penectomy is performed, with or without removal of regional lymph nodes.

Conclusion: This case is an example of HPV infection in a young man that lead to the development of a malignant tumor of the penis. As HPV 16/18 are the most common types associated with penile cancer, it is important to raise awareness in young adults and question the necessity of routine screening, along with vaccination and epidemiological investigations preventing HPV16/18 infections.

ID 56 Antioxidant Effect of PLGA Nanopaticles Loaded with Lutein and Vitamin E in Animal Model

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Objectives: Polylactic-co-glycolic acid (PLGA) is one of the most effective biodegradable polymeric nanoparticles (NPs) used as a delivery systems for many drugs in the treatment of cancer, osteoporosis or neurodegenerative diseases.

The aim of our study was to evaluate the antioxidant effect of PLGA NPs loaded lutein and vitamin E in Wistar male rats that received hypercaloric diet during 21 days.

Methods: PLGA NPs was prepared by the emulsion-solvent evaporation method, where 400 mg of PLGA were dissolved in 12 ml ethyl acetate.

15 Wistar male rats were divided into 3 groups, each containing 5 rats that received daily hypercaloric diet (group C), hypercaloric diet with PLGA-vitamin E (group E) and hypercaloric diet with PLGA-lutein (group L) (daily 50 mg/kg body weight).

Oxidative stress biomarkers as glutathione (GSH), malondialdehyde (MDA), total antioxidant capacity (TAC), advanced human oxidation protein products (AOPP) and vitamin E were analyzed in liver tissue homogenates using ELISA and spectrophotometric methods.

Results: Our results showed important modifications in redox status in liver revealed by statistically significant lower values for MDA and AOPP for L and E group versus C group ($p<0.1$)

GSH and TAC levels were significant higher values for L and E group versus C group ($p<0.1$)

Results of our study revealed statistically significant increased levels of vitamin E in group E versus group C ($p<0.01$) for GSH and TAC and lower levers for MDA and AOPP, thus the antioxidant capacity of vitamin E

Conclusions: Administration of PLGA NPs provided protection against oxidative stress damage and PLGA NPs lutein and vitamin E loaded may be considered as a promising approach to enhance the antioxidant defense system in treatment of many diseases with high efficacy and few side effects.

ID 87 Exploratory Trend Analysis of Potential Years of Life Lost (PYLL) Through Circulatory Diseases in Romania - Opportunities and Challenges for Public Health

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Aim: an exploratory trend analysis of PYLL through circulatory diseases in Romania.

Objectives: 1) to calculate the PYLL for circulatory diseases in Romania for a 5-point trend (years: 1995; 2000; 2005; 2010 and 2015) 2) to explore the information collected via secondary sources of Romanian and European data and 3) to highlight opportunities and challenges in the use of this information for public health prevention policies.

Methodology and methods: quantitative methodology with two secondary data sources (INS and Eurostat) for trend in number of deaths (total; circulatory diseases), by gender and <65 years or <75 years; and population. Methods include: the use of the established PYLL formula (classical vs Horm for both age thresholds); and two indicators: mean PYLL/ premature death and number of PYLL/ 1000 population. All calculations were carried out with the use of Microsoft Excel.

Results: Total number of deaths and deaths by circulatory diseases were used to calculate the total number of unadjusted PYLL<65. A 4-point trend shows: 1,436,869 (1999) to 813,423 years lost through premature deaths (2015). This was validated against the 2003 reported figure of 1,265,684 years (Minca DG, 2005). Mean PYLL≤65/ premature death decreased from 17.1 to 12.8 years/death. Number of PYLL<65/ 1000 population decreased from 62.9 to 36.5 (2015). The 2015 value is close to 34.5/ 1000 population for Canada PYLL<75 (OECD, 2013). Values for: total unadjusted PYLL<75, cause-specific (circulatory diseases) PYLL<65 and PYLL<75 will be reported. A preliminary analysis identified the opportunity for comparing premature mortality for circulatory diseases with all other causes (36% PYLL<65 from circulatory diseases, 2003); and to compare rates of PYLL<75/ 1000 population across countries. A major challenge remains the misclassification of data.

Conclusion: PYLL are an important public health indicator (one in four deaths occurs <65 years). Public health prevention policies can benefit from this information.

ID 200 Soluble Virulence Factors in *Staphylococcus* spp. Isolated from Skin Infections

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Objectives: Skin and soft tissue infections pose a serious problem, in which one of the most frequent incriminated germ is Staphylococcus spp. The objective of this study was to evaluate the profile of produced soluble virulence factors in strains isolated from difficult-to-treat skin infections.

Methods: We evaluated the capacity of producing soluble virulence factors by 101 strains of Staphylococcus spp. isolated from skin and soft tissue infections between October and December 2018. The 24 hours culture was grown on special media in order to evaluate the capacity of producing caseinase, DN-ase, lecitinase, gelatinase, hemolysins, amylase, lipase and esculinase. The plates were read at 24, 48 and 72 hours and were scored on a scale from 0 to 4, depending on the intensity of virulence factors production.

Results: At 24 hours, 90% of the strains produced caseinase, while 85% of the isolates produce lecitinase, 15% produced gelatinase and 12% lipase. At 48 and 72 hours the most significant increase in intensity of expressing soluble virulence factors was observed in the case of caseinase and lecitinase.

Conclusions: In the selected strains the expression of virulence factors was observed in all isolates. Most frequently *Staphylococcus* spp. strains expressed caseinase and lecitinase. In the physiopathology of difficult-to-treat infections the virulence factors play a very important role, leading to a prolonged treatment and high risk of failure.

ID 71 MicroRNAs: Innovative Molecules in Hepatitis B

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Objective: MicroRNAs are intensely studied by worldwide scientists with the purpose of searching new ways of understanding and eliminating hepatitis B. The objective of this article is to obtain new results, under this subject matter, and to identify new research areas.

Methods: Selected patients with hepatitis B virus infection were investigated, using RT-PCR, concerning the expression of the following microRNAs: miR-29a, miR-192-5p, miR-15, miR-200b-3p, miR-21, miR-130a.

Results and conclusions: After the analysis of obtained data, a close connection is established between the studied microRNAs and hepatitis B virus. Furthermore, some of these molecules might serve as biomarkers in evaluating infected HBV patients during different stages of the disease. It is also attempted to determine microRNAs useful in early identification of some complications of the illness.

Some microRNAs may be innovative biomarkers in evaluating patients with chronic hepatitis B virus infection. New upcoming studies may also be of great use in finding the involvement of these molecules in establishing treatment response of HBV infected people.

DENTAL MEDICINE

ID 28 Pretreatment Assessments of Deep Carious Lesions in Children's First Permanent Molars

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Objectives: To assess the dentin lesion activity and levels of cariogenic bacteria in first permanent molars (FPM) affected by deep caries lesions, before indirect pulp treatment.

Methods: Study sample consisted of 9 children aged 7 to 12-year-old (mean 9.11, SD 1.36), recruited from the Department of Pedodontics, Faculty of Dental Medicine, Carol Davila University of Medicine and Pharmacy. After cavity opening and partial removal of dental caries using high-speed equipment for enamel, excavators and low-speed equipment for dentin, the estimation of lesion activity in clinical terms was done as follows: light yellow/yellow and wet – actively progressing carious dentin; light brown and dry – slowly progressing carious dentin; dark brown/black – arrested carious dentin. A fine sample of deep dentin layer was removed with a sterilized excavator and inoculated on the bacteria tests (CRTbacteria, Ivoclar Vivadent, Liechtenstein). Semi-quantitative assessment of lactobacilli was then performed.

Results: Four maxillary and 5 mandibular FPM were included in the study. High levels of lactobacilli were retrieved in 2 FPM with actively progressing caries and 1 FPM with slowly progressing decay. Moderate levels were recorded in 1 FPM with actively progressing decay and 2 FPM with slowly progressing caries, whilst low levels were found in 2 FPM with slowly progressing caries and 1 FPM with arrested decay.

Conclusions: Bacterial colonization was increased in carious lesions that were clinically assessed as being progressing. Dentin hardness and humidity seemed to be associated with lactobacilli counts.

Acknowledgement: This work was supported by a grant of Ministery of Research and Innovation, CNCS – UEFISCDI, project number PN-III-P4-ID-PCE-2016-0506, within PNCDI III.

ID 175 Comparative Evaluation of Static Friction Produced by Self-Ligating and Conventional Brackets

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Objective: This study aimed to experimentally evaluate the static frictional forces generated by stainless steel self-ligating brackets, conventional stainless steel brackets and conventional monocrystalline alumina brackets in association with round 0.016″ NiTi archwires.

Method: Brackets corresponding to the upper right quadrant (form upper right central incisor to upper right second premolar) were passively bonded on standardized maxillary models. All types of brackets used in this study had MBT prescription and a 0.022″ slot. Elastomeric ligatures were used to secure the 0.016″ NiTi archwire to the conventional bracket system. Bracket-archwire assemblies were submitted to mechanical testing using a universal testing machine (Schmidt HV-500N), designed to measure the compression and traction force. Each of the bracket-archwire combinations was tested six times and each test was performed with a new bracket-archwire sample. For all data descriptive statistical analysis, including the mean and standard deviation of static frictional forces was performed.

Results: Our experiments showed a variation of static frictional forces depending on the type of bracket used. Self-ligating stainless steel brackets generated significantly lower static frictional forces than conventionally ligated brackets manufactured from the same material. Similar to the aforementioned experiment, self-ligating brackets were associated with lower frictional values than conventional monocrystalline alumina brackets. Comparing the two types of conventional brackets, monocrystalline alumina brackets produced higher static frictional forces than stainless steel ones.

Conclusions: In terms of static friction, self-ligating stainless steel brackets associated with 0.016″ NiTi archwires were more efficient than conventional brackets, regardless of their fabrication material.

Even if more aesthetically pleasing, monocrystalline alumina brackets produced higher static frictional forces than stainless steel brackets.

ID 65 Surface Characterization of Two Pulp Capping Agents

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Objectives: The aim of this study was to investigate and compare the chemical composition, surface and microstructural characteristics and micro-hardness of two commercially available pulp-capping agents, (a light cured resin-modified calcium trisilicate and a mineral trioxide aggregate), with different setting reaction mechanisms.

Methods: The two tested materials were TheraCal LC (Bisco, USA), and BIO MTA+ (Cerkamed, Poland). Both materials were prepared as cylindrical specimens. The materials surface characterization was performed through scanning electron microscopy (SEM), atomic force microscopy (AFM), Fourier transformed infrared spectroscopy (FT-IR), contact angle measurements (CA) and Vickers micro-hardness testing.

Results: SEM micrographs for TheraCal were displayed as mineral particles evenly distributed in the organic matrix, with the presence of a microporosity, while BIO MTA+ displayed a dense microstructure with the presence of Bi2O3, in the form of rods and calcium silicate hydrates (CSH) in the form of needle-like / folded sheets. FT-IR analysis displayed TheraCal's spectrum with different bands for CO32-, SiO44-, Ca-3SiO5, PO43-, SO2, COO-, C=O and C=C groups. BIO MTA+ spectrum showed bands for SO42-, SiO44- and CSH groups. AFM measurements revealed a relatively smooth surface for the TheraCal sample, with an average roughness (Ra) of 29.9 nm, while BIO MTA+ sample had a Ra of 0.173 μm. CA measurements indicated a mean value of 62.83□ for TheraCal's surface and a mean value of 66.64□ for BIO MTA+. Vickers micro-hardness testing for BIO MTA+ showed a 64 HV (SD 14) hardness, while TheraCal displayed a 16 HV (SD 2) hardness.

Conclusions: TheraCal's surface was much smoother due to the resin matrix from its composition. Contact angle measurements exhibited a hydrophilic surface for both materials. In terms of surface micro-hardness, BIO MTA+ was superior to TheraCal.

Acknowledgement: This work was supported by a grant of Ministery of Research and Innovation, CNCS – UEFISCDI, project number PN-III-P4-ID-PCE-2016-0506, within PNCDI III.

ID 132 Efects of Polymeric Nanoparticles in Activation AKT/mTOR in Dental Pulp Cells

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Objectives: The purpose of this study is to evaluate different checkpoints along the AKT/mTOR molecular pathway after incubating dental pulp cells with polymeric nanoparticles.

Methods: In this study dental pulp cells were incubated with 5μg/mL of poly lactic-co-glycolic acid (PLGA) polymeric nanoparticles. After incubating 24 hours the cell lysate was analyzed for AKT/mTOR molecular pathway using Multiplex.

Results: Significant results ($p<0.05$, T-test) were observed for the key molecules in AKT/mTOR molecular pathway. Key pathway checkpoints such as AKT/mTOR or PTEN, were activated in dental pulp cells exposed to polymeric nanoparticles when comparing with respective negative controls.

Conclusion: After 24 hours of incubation with polymeric nanoparticles the AKT/mTOR molecular pathway is activated in dental pulp cells.

ID 37 Clinical and Paraclinical Findings in Children with Caries Experience

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The aim of the study was to clinically assess the caries experience in children aged 5 to 10-years-old, and to identify possible associations with salivary microbiology.

Methods: This pilot study was cross-sectional, conducted on a group of 8 patients (25% boys), examined at the Pedodontics Department of the Faculty of Dental Medicine, Carol Davila University of Medicine and Pharmacy. The level of caries activity was determined by clinical methods, inspection and palpation, and calculation of DMFT(S) and dmft(s) indices. One millilitre of unstimulated whole saliva was collected, and used for cultivation of *Streptococcus mutans* and *Lactobacillus* spp. on bacteria tests (CRTbacteria, Ivoclar Vivadent, Liechtenstein). The salivary pH was evaluated using strip tests, applied sublingually.

Results: The mean age was 6.93 ± 1.53 years old. The mean values of the caries experience indices were: 1.85 ± 2.34 for DMFT, 3.14 ± 4.09 for DMFS, 6.5 ± 5.01 for dmft, and 5.87 ± 4.85 for dmfs, respectively. The mean pH value was 6.62 ± 0.51 (range 6 to 7). Salivary microbiological evaluation identified counts >105 CFU/ml for both bacteria in 5 patients. No significant associations were detected between pH, dmft, dmfs, and bacterial colonization. DMFT and DMFS were positively associated with the level of bacterial colonization at a marginal significance level ($p=0.07$).

Conclusions: Salivary levels of cariogenic bacteria were positively associated with the presence of caries in permanent teeth. Most patients experienced carious lesions in primary dentition, without significant changes in salivary pH levels.

Acknowledgement: This work was financially supported by "Carol Davila" University of Medicine and Pharmacy through Contract no. 23PFE/17.10.2018 funded by the Ministry of Research and Innovation within PNCDI III, Program 1 – Development of the National RD system, Subprogram 1.2 – Institutional Performance – RDI excellence funding projects.

MEDICAL SPECIALITIES

ID 110 Crosstalk between Oxidative Stress, JAK2V617F Mutation and Disease Progression in Essential Thrombocythemia

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Objective: Essential thrombocythemia (ET) is a BCR-ABL1-negative myeloproliferative neoplasm associated in 50-60% of cases with the JAK2V617F acquired mutation. Oxidative stress induces a growth advantage to JAK2V617F-positive clones and enhances genomic instability, disease progression to myelofibrosis or blastic transformation. The research aim was to evaluate oxidative stress levels in ET and to investigate the oxidative stress–JAK2V617F mutation–disease progression relationship.

Method: We recruited 62 ET patients diagnosed according to the 2016 revised diagnostic criteria of the World Health Organization, and 20 healthy volunteers (informed consent and approval of the local ethics committee obtained). Oxidative stress was evaluated by flow-cytometry (CyFlow Space Sysmex; reagents: Abcam) to measure ROS levels and using a FLUOstar Omega multi-detection microplate reader (reagents: Sigma-Aldrich) to quantify the total antioxidant capacity (TAC). JAK2V617F mutation was detected via allele specific polymerase chain reaction.

Results: The study involved 62 ET patients: 37 females (59.70%) and 25 males (40.30%), with a mean age 59.50 years. All ET patients had increased ROS levels and decreased TAC at diagnosis compared to healthy controls ($p<0.05$). Thirty-six ET patients were JAK2V617F-positive and 26 were JAK2V617F-negative. JAK2V617F heterozygosity was detected in 30 ET patients (48.39%) and homozygosity in 6 ET patients (9.68%). ROS levels were higher in JAK2V617F-positive cases vs. JAK2V617F-negative cases (mean ROS value = 2.73 mM/L vs. 2.60 mM/L; $p<0.05$). TAC was lower in JAK2V617F-positive cases vs. JAK2V617F-negative cases ($p<0.05$). No significant differences were found between homozygous vs. heterozygous JAK2V617F genotype. Five ET patients had disease progression, one to acute myeloid leukemia and four to myelofibrosis, all of whom were JAK2V617F-positive and had higher ROS levels vs. JAK2V617F-negative ET patients.

Conclusion: Our results suggest that oxidative stress, via increased ROS levels, induces a growth advantage to JAK2V617F-positive clones and enhances genomic instability, disease progression to myelofibrosis or blastic transformation in ET.

ID 7 Choosing between Rhythm and Rate Control in Atrial Fibrillation - How Much Does Hypertension Matter?

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Objective: Atrial fibrillation management, according to 2016 ESC Guidelines, is currently a matter of clinical judgment rather than an evidence based medical decision, as it requires reaching a compromise between both physician's and patient's preference, in an attempt to reduce symptoms burden. Having as starting point the lack of a generally applicable decisional algorithm and the inconsistently defined criteria for choosing the adequate therapeutic approach, our study aimed to investigate to what extent hypertension, as associated condition in atrial fibrillation patients, might influence rhythm versus rate control option.

Methods: Our analytic-observational study retrospectively analyzed, over a two years period, 925 hypertensive patients presenting with different atrial fibrillation patterns (paroxysmal, persistent, permanent), grouped by the three hypertension severity grades and therapeutic strategies (rate or rhythm control).

Results: The statistical evaluation indicated that, out of the three patterns, paroxysmal atrial fibrillation was the predominant one in grade 1 hypertensive patients (72% compared with 28% in grade 2 and 33.3% in grade 3, $p=0.0001$), while other arrhythmia types were more common within higher hypertension grades.

With reference to treatment strategy, results revealed a statistically significant difference ($p=0.0001$) between the three groups of hypertensive patients, with rhythm control being the dominant approach in grade 1 hypertensive patients. Nonetheless, in patients presenting with higher blood pressure values, rate control was substantially preferred.

Conclusions: Our findings support the hypothesis that uncontrolled hypertension might not only increase the risk of recurrent atrial fibrillation episodes, but also accelerate the progression towards more severe arrhythmic patterns and eventually precipitate the transition from infrequent episodes to a genuine chronic condition. Therefore, the study emphasizes the imperative need of always considering and correctly appreciating hypertension severity when facing the 'rhythm versus rate control dilemma' related to atrial fibrillation management.

ID 8 Heart Rate Variability, QT Interval Dispersion and Tpeak-Tend Interval in Patients on Long-Term Hormone Therapy for Advanced Prostate Cancer

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Objective: To evaluate the effects of luteinizing hormone-releasing hormone antagonists (LHRHA) in advanced prostate cancer (APC) on the cardiac electrical parameters in patients (pts) in sinus rhythm (SR). Method. We evaluated 40 pts with APC treated by orchiectomy and LHRHA, excluding pts with atrial fibrillation, NYHA III and IV class heart failure (HF), acute myocardial infarction (AMI) within the last 6 months, chronic renal disease stages IV-V. We performed ECG, Holter ECG recording QT interval dispersion (QTd), Tpeak-Tend interval (Tpe), heart rate variability (HRV): standard deviation of normal-to-normal interval over 24 hours (SDNN-24h), the square root of the mean squared differences of successive NN intervals (rMMSD), the rate low frequency/high frequency (LF/HF), ventricular premature beats (VPB) at the beginning of the treatment (T1) and 6 months later (T2). We performed paired *t*-test for comparing the differences and correlation test.

Results: Pts were 71.8 ± 10 years old. 77.5% pts had arterial hypertension, 52.5 % stable angina, 25 % old myocardial infarction, 22.5% diabetes mellitus, 20 % chronic renal disease grade I-IIIb. Mean LVEF was 60 ± 5%. Between T1 and T2 67.5% pts had a significant increase of the QTd (+ Δ QTd) and 25 % pts a non significant increase of Tpe (ΔTpe). Mean +ΔQTd was 93 ± 10 ms, mean +ΔTpe was 11± 6 ms. 60 % pts had a significant decrease of SDNN with 24. 5 % of them having concomitant increase of QTd. There was not an increase in the severity of VPB between T1 and T2.

Conclusion: 67.5% pts with advanced prostate cancer receiving LHRH antagonist for 6 months had a significant prolongation of QTd and 60 % a significant decrease of SDNN-24 suggesting an increase of the myocardial electrical instability. During this period there was no change in the number or severity of VPB.

ID 109 Polypharmacy in Type 2 Diabetes Mellitus: Is It a Reason for Concern?

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Objective: Type 2 diabetes mellitus (T2DM) is a considerable cause of polypharmacy (≥5 drugs daily), explained by the necessity to treat microvascular and macrovascular complications, but also due to the presence of comorbidity clusters. Our objective was to investigate the employment of polypharmacy in T2DM patients.

Methods: A cross-sectional retrospective observational study was conducted. T2DM patients referred to our department between 01/01/2018–28/02/2018 were included. A control group was randomly selected from non-diabetic patients referred to our department for other afflictions.

Results: 63 T2DM patients (mean age 69.19±9.67 years, range 46-89 years, 52.38% males) and 63 non-T2DM patients (67.05±14.40 years, range 42-93, 39.68% males) were recruited. T2DM patients were older (p=0.0189), had more comorbidities (10.35±3.09 vs. 7.48±3.59, p=0.0001) and received more drugs (7.81±2.23 vs. 5.33±2.63, p=0.0001) vs. non-T2DM counterparts. The mean number of drug-drug (8.86±5.76 vs. 4.98±5.04, p=0.0003) and food-drug (2.63±1.08 vs. 2.19±1.42, p=0.0457) interactions were higher in T2DM patients vs. controls. In terms of severity, moderate drug-drug interactions were more frequent in T2DM patients vs. controls (7.08±4.08 vs. 3.54±3.77, p=0.0001). The differences between groups were not statistically significant in terms of minor (1.22±1.42 vs. 1.27±1.89, p=0.8774) or major (0.56±0.74 vs. 0.37±0.77, p=0.1873) drug-drug interactions. In T2DM patients, the most common drug classes prescribed were statins, diuretics, beta-blockers and angiotensin-converting enzyme inhibitors. In controls, beta-blockers were the most prescribed, followed by statins, angiotensin-converting enzyme inhibitors and diuretics. Anti-diabetic medication was prescribed in 44.44% of cases: metformin and gliclazide were the most frequent agents employed; 14.28% of patients required combination therapy of ≥2 anti-diabetic agents.

Conclusions: Polypharmacy should be an area of serious concern also in type 2 diabetes mellitus, especially in the elderly. In our study, type 2 diabetes mellitus patients received more drugs than their non-type 2 diabetes mellitus counterparts and were exposed to more drug-drug and food-drug interactions.

ID 40 Implementing an OSCE (Objective Structured Clinical Examination) at the Pneumology Department - a New Approach in Medical Education

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Background: OSCE was introduced to replace traditional clinical examination, which had been demonstrated to be unreliable. It has been recognised as a gold standard for performance assessment in which examinees are observed and scored as they rotate around a series of stations according to a set plan. Each station focuses on an element of clinical competence and the learners' performance with a real or simulated patient, a manikin or patient investigations supervised by an examiner.

Objectives: To determine the feasibility and acceptability of an OSCE as a learning experience for medical students. The aim is to introduce and disseminate the OSCE approach to UMF Carol Davila and to receive positive feedback.

Methods: Fifthy-one medical students in their fourth year took part in an OSCE comprising thirteen stations, designed and adapted for the local curriculum. Stations included interpretation of three chest x-rays and two spirometries, history taking of a mock patient and three clinical cases. Each examiner scored examinees using a checklist and a global rating scale. Following the OSCE, participants completed surveys which provided feedback that was interpreted by statistical means in order to improve the quality of future OSCE.

Results: Most students were satisfied with the assessment and appreciated the learning experience. 74% agreed to fill in the quiestionnaires. Among them, 84,2% think that OSCE was (much) more objective than traditional clinical examination. That group was strongly correlated with the belief that clinical skills are important for a competent doctor ($p < 0.05$). The study also outlined that 81,5% believe that OSCE should be included into other disciplines.

Conclusions: OSCE is a performance assessment that reflects the application of the knowledge to practice. We found the OSCE to be a feasible and acceptable means of assessing students, playing a major role in response to changes in medical education.

ID 75 MIRNAs Expression Reflects Pathological Changes in Patients with Urinary Bladder Cancers

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Objectives: Bladder cancer is one of the dominating causes of death worldwide. This type of cancer is a major concern for estimation of life expectancy worldwide, also in Romania. According with WHO statics published, in 2017 great number of 1651 bladder cancer deaths have been reported in Romania, representing 0.70% of total deaths. The aim of this research was the correlation of the expressions of selected microRNAs with pathological characteristics of bladder tumors according to the standard criteria. We investigated seven microRNAs (miR-124, miR-126, miR-139, miR-145-3p, miR-145-5p, miR-152, miR-182) in order to define their clinical relevance in the diagnosis and staging of bladder cancer.

Methods: To reveal the role of each selected microRNA in carcinogenesis, we have analyzed expression levels of these microRNAs in tumor samples versus adjacent normal tissues, as well as correlation between their expression levels and staging, lymph node metastasis. Total RNAs were isolated with miRVana miRNA Isolation kit-Invitrogen. Expression levels of selected microRNAs was performed by qRT-PCR method (TaqMan Universal Master Mix II and specific primers from Applied Biosystems).

Results and conclusions: We have found a epigenetic signature that included downregulation of miR-126, miR-139, miR-145-5p, miR-145-3p, miR-152, as well as upregulation of miR-182 compared to normal tissues and tumor, node, metastasis staging. The expressions of miR-126, miR-139 and miR-152 were significantly downregulated in T3N0 patient compared to T3N+. These miRNAs are suggested to be clinically relevant for monitoring the bladder cancer patients during treatment monitoring.

The results are important for the elaboration of personalized diagnosis scheme which include staging of the cancer progression in both terms of TNM criteria and molecular miRNA expression profiles. They may be used for the molecular treatment of the tumor tissue by injecting synthetic oligonucleotides able to modify the in vivo miRNA expression that proved a particular tumorigenic activity.

ID 111 Serum Ferritin and Reactive Oxygen Species Levels are Increased in Obese Patients

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Objective: Obesity is a multifactorial disease, characterized by adipose tissue dysfunction which involves a crosstalk between inflammatory pathways and reactive oxygen species (ROS) signaling. The objective of the study was to evaluate the ROS levels and serum ferritin in a group of obese patients and to investigate the relationship between these elements.

Method: Eighty five obese patients, diagnosed with obesity via body mass index (BMI) values in accordance with the World Health Organization (WHO) criteria, and 30 non-obese controls were recruited. Patients were divided by sex, age and obesity class. ROS levels were measured using a CR3000 analyzer by the FORT (Free Oxygen Radical Testing) assay. Serum ferritin level was evaluated by chemiluminescence. Informed consent was obtained from all subjects involved in the research and approval has been granted by the ethics committee of the university.

Results: The study group included 85 obese patients: 17 males (20.00%) and 68 females (80.00%), mean age 61.85 ± 10.60 years, age range 24-82. The control group included 30 non-obese subjects (mean age 44.60 ± 18.45 years, age range 18-85). Mean BMI was 36.44 ± 3.63 kg/m2 in obese subjects vs. 24.56 ± 1.76 kg/m2 in controls (p-value < 0.0001). 38 patients (44.70%) had first class obesity, 31 patients (36.47%) – second class obesity and 16 patients (18.83%) – third class obesity. FORT values and serum ferritin levels were increased in obese patients vs. controls (3.09 ± 0.36 mmol/L vs. 2.03 ± 0.14 mmol/L, p-value<0.001 and 321.30 ± 18.85 ng/mL vs. 158.60 ± 59.09 ng/mL, p-value<0.0001, respectively). We found a positive correlations between FORT and serum ferritin (r = 0.03).

Conclusion: We recorded increased levels of ROS and serum ferritin in obese subjects as compared to non-obese subjects. These results suggest a possible link between oxidative stress, chronic inflammation and obesity.

ID 120 Allopathic and Homeopatic Doses of NaF and the Influence on Ovaries of Female Mice NMRI Type

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The influence of natrium fluoride administration on ovaries of a population of female mice NMRI type treated during gestation with two distinct doses of NaF: 0,25 mg and 0,50 mg was studied from the morfphopathological angle; the research also extended to offspring (generation 1- F1), treated with NaF in allopathic (0,25 mg and 0,50mg), homeopathic (7CH) or with the association between the two types (allopathic and homeopathic) of doses. The microscopic analysis of ovaries was also assesed in the second generation offspring (F2), in wich fluorine was exclusively taken from ascendant generation. Experimental results (anatomical pathology examination on optical microscope, HE coloration, 100X, 400X) revealed folicular dystrophy with vacuolization, modified stromal cells- atrophy and vacuolar dystrophy, immature ovarian follicles.

ID 129 Screening of Pharyngeal and Nasal Carriage of Beta-Hemolytic Streptococci among a Student Series at the Faculty of Dental Medicine

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Objective: *Streptococcus pyogenes* can be transmitted from carriers to susceptible persons. The purpose of this study was to investigate the pharyngeal and nasal beta-hemolytic streptococcal carriage among the students from the Faculty of Dental Medicine.

Method: During the first semester of the academic year 2018-2019, pharyngeal and nasal swabs were collected from 92 clinical healthy students belonging to the 2nd year study at the Faculty of Dental Medicine, the University of Medicine and Pharmacy "Carol Davila" - Bucharest, who have not received antibiotics in the last 3 months. The swabs were seeded on Columbia Blood Agar (BioMérieux, France) and incubated under anaerobic conditions, at 35°C, for 24-48 hours. Gender and species identification of the beta-hemolytic streptococcal isolates was performed by conventional methods and the Rapid ID 32 STREP (BioMérieux, France).

Results: Only 3 beta-hemolytic streptococcal strains were isolated. All originated from the oropharynx and were identified as Streptococcus anginosus. One strain was Lancefield ungroupable and became alpha prime-hemolytic in subcultures. The other 2 strains belonged to group G and one of them developed colonies of 1.5mm diameter.

Conclusions: The present study showed the absence of S. pyogenes among the investigated persons. However, dental students need to be informed about the risk of microorganisms transmission in dental offices. In order to accurately identify beta-hemolytic streptococci, microbiologists should be aware of the possibility of isolation of beta-hemolytic *S. anginosus* strains of group: A, C, F or G, sometimes with atypical colonies (larger than 1 mm).

Acknowledgement: This study is part of the internal research plan for 2018-2019 of the Chair of Microbiology, the Faculty of Dental Medicine, and was done in collaboration with a member of the Chair of Epidemiology, the Faculty of Medicine of the University of Medicine and Pharmacy "Carol Davila" – Bucharest.

ID 190 Experimental Assessment of Compressive Strength of Pulp-Capped Teeth

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Aim: To perform experimental assessment of the compressive strength (CS) of permanent teeth treated with mineral trioxide aggregate (MTA), and calcium hydroxide, respectively, used as indirect pulp capping material in deep cavities.

Material and method: The research was designed as an experimental *in vitro* study. Ten caries- free teeth, recently extracted for orthodontic purposes (premolars and third molars) were selected and deep occlusal cavities were prepared. The indirect pulp capping was performed on 5 teeth with grey MTA (Angelus, Londrina, Paraná, Brazil) (Sample1=S1), and on 5 teeth with calcium hydroxide (Life, Kerr, USA) (Sample 2 = S2). For both groups, conventional glass-ionomer (Fuji IX, GC, Japan), as base material, and crown restoration with SwissTEC composite resine (Coltene AG, Alstatten, Switzerland) were applied. Each tooth was fixed in an aluminium alloy socket made according to radicular surface. CS assessment was performed using LR5K Plus (Lloyd, UK) materials testing machine (F_{max} = 5 KN, full speed =1016 mm/min, accuracy of force determination =0.0001N). Statistical analysis was performed using Excel 2010.

Results: a) the highest level of CS = 24.78 Mpa (S1) / 25.9 Mpa (S2); b) the lowest level of CS = 8.96 Mpa (S1) / 4.33 Mpa (S2); c) mean level of CS = 14.5 Mpa (S1)/ 15.58 Mpa (S2); d) maximum deformation = 1.83 mm (S1)/1.59 mm (S2); e) minimum deformation = 0.5 mm (S1)/ 0.5 mm (S2); f) mean deformation = 1.25 mm (S1)/ 1.59 mm (S2) ($p>0.05$).

Conclusion: There were no statistically significant differences concerning the compressive strength of the permanent teeth treated with MTA or calcium hydroxide.

ID 3 Pharmacognostical Researches Regarding Indigenous Macrolepiota Procera Mushroom

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Scope: Singer, Parasol mushroom, is one of the most popular wild edible mushrooms, very appreciated for its culinary value. According to scientific literature, Parasol is a valuable source of 5-hydroxytryptophan.

Objectives: Determination of botanical characteristics, evaluation of chemical composition, quantification of the main chemical compounds and evaluation of the antioxidant activity of indigenous Macrolepiota procera.

Material and methods: The material consists of basidiocarps of this one mushroom harvested in August 2016, from forests of Moraresti, Arges County, Romania. Spectrophotometric and chromatographic methods have been used for mushroom's chemical evaluation. The content of polyphenols was determined by Folin–Ciocalteu method. The antioxidant activity was assessed using scavenger activity against DPPH (2,2-diphenyl-1-picrylhydrazyl) radical.

Results: The microscopic examination revealed the presence of hyphaes with specific spores. Triterpenes, sterols, polysaccharides, amino acids were identified by specific chemical reactions in Parasol mushroom. By thin-layer chromatography one can note the presence of several spots corresponding to compounds with sterols/ triterpenes behavior. In the course of our investigation we obtained a rich content of polyphenols (0.7658 + 0.0436 expressed in g tannic acid per 100 g of dry weight). The antioxidant activity of the extracts (EC50 = 5.0019 + 0.0821 mg/mL-DPPH assay) can be correlated with the presence of polyphenols, polysaccharides, tocopherols, ergosterol and mineral constituents (mentioned by scientific literature). Also, the antioxidant activity is expressed as ascorbic acid Equivalents (5.093+ 1.6323 mg/g). From the infrared spectra analysis recorded in the range of 4000 – 500 cm-1, the bands corresponding to the nitrites and nitrates were not present. Therefore, we assume that this one mushroom was collected from a non-polluted area.

Conclusion: The wild mushroom Macrolepiota procera represents an alternative source of food that may be used to prevent excessive oxidative stress in the human body.

ID 4 Chemical Composition and Antioxidant Activity of Romanian Lavender (*Lavandula Angustifolia* Mill.)

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Lavender (*Lavandula angustifolia* Mill.) is a strongly aromatic plant, with a wide range of therapeutic effects (sedative, antioxidant, antibacterial etc). Objectives. The aim of our study was the evaluation of chemical composition and antioxidant activity of indigenous lavender at different growing stages.

Material and methods: Lavender flowers were collected at flowering, in the months of June (LI) and September (LS) from Valea Calugareasca, Prahova county, Romania. Phytochemical screening was determined by means of qualitative (specific chemical reactions and thin layer chromatography) and quantitative methods. Spectrophotometric assays have been used for evaluation of total phenolic (expressed as gallic acid equivalents), tannins (expressed as gallic acid equivalents) and anthocyanins (expressed as cyanidin chloride equivalents) contents. The essential oil content was determined by means of a volumetric method (NeoClevenger apparatus). Antioxidant capacity was assessed by scavenger activity towards DPPH (2,2-diphenyl-1-picrylhydrazyl), $ABTS^{\cdot+}$ (2,2'-azinobis-(3-ethylbenzothiazoline-6-sulfonic acid) free radicals and ferric reducing properties. The antioxidant activity was expressed as EC50 (mg/ml).

Results: Both samples (LI and LS) have shown a similar phytochemical profile. By means of thin layer chromatography, linalool was identified in both LI and LS essential oils. Regarding the phenolic content, lavender flowers harvested in June had a higher content of anthocyanins (0.04 g%), tannins (1.32 g%) and total polyphenols (2.89 g%). However, LS flowers were richer in essential oil (4.4%) compared to LI (3%). LI flowers showed better antioxidant activity compared to LS ones, which is strongly correlated with their phenolic content.

Conclusions: Both samples are a source of bioactive compounds. However, LI have shown stronger in vitro antioxidant effects. Lavender flowers, harvested in June, might be further used for obtaining selective dry extracts, with potential therapeutic effects in diseases for which oxidative stress is a key factor.

ID 20 Obtaining Hybrid Molecules as a Strategy in the Development of New Antimicrobial Therapeutic Agents

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Objective: Molecular hybridization is a powerful strategy that groups of researchers use to develop compounds with therapeutic potential. According to the literature, hybrid molecules have been applied in many therapeutic areas such as tropical diseases caused by parasites (malaria), bacterial infections, cancer, neurodegenerative diseases (Alzheimer's), tuberculosis, inflammations, etc., giving them advantages over standard therapies. This concept can be seen as an extension of the fixed dose combination concept of two or more drug substances in a single tablet. Salicylaldehyde has antimicrobial activity on Bacillus cereus, *Candida albicans, Escherichia coli, Saccharomyces cerevisiae* and *Staphylococcus aureus* strains and its Schiff bases can be promising antibacterial agents, which we have attempted to demonstrate by combining in the same molecule with a recognized antimicrobial sulfonamide.

Method: The compounds were obtained as Schiff bases (imine compounds) by condensation of a sulphonamide (sulfanilamide, sulfamethoxazole) with salicylaldehyde, using an innovative method that uses microwaves as energy sources. An innovative method of synthesis using microwave heating has been used, taking into account the advantages it has brought to chemical synthesis in recent years. The compounds were obtained by reaction of salicylaldehyde with sulfanilamide, respectively with sulfamethoxazole, using glacial acetic acid as the catalyst and in the presence of methanol as the solvent.

Results: The resulting compounds with good yields were analysed qualitatively by determining the melting point and solubility, and by recording the IR and NMR spectra, demonstrating the obtaining of proposed compounds.

Conclusion: Given the cyclic character of the research process, synthesis of several derivatives and testing of their activity would lead to new trends in the structural optimization of these compounds. The new molecules can be put forward as a suggestion for creating a new class of antimicrobial agents, thus developing opportunities in medical research and the discovery of new drugs.

ID 21 Contributions to the Use of Geranium Phaeum in Therapy

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The genus Geranium comprises over 400 species of flowering annual, biennial and perennial plants. They are found as wild or cultivated species in the temperate regions of the world. Some of the species are medicinal plants (e.g., G. robertianum and G. macrorrhizum). G. phaeum is an herbaceous spontaneous species in Romania's flora, less studied phyto-chemically and pharmacologically. In traditional medicine its aerial parts are used in the treatment of dysentery.

Objectives: The current study proposes a microscopic and phytochemical characterization of a sample of G. phaeum collected from the spontaneous flora of Prahova county (Romania).

Methods: The underground and blooming aerial parts were microscopically analyzed. The aqueous solutions obtained by infusion and decoction were analyzed comparatively, in terms of qualitative composition (through specific reactions) and quantitative composition (dosing soluble-substances, mucilages, flavones, phenolcarboxylic acids and total polyphenols - using specific gravimetric and spectrophotometric methods).

Results: The microscopic examination has highlighted a number of anatomical characters, which may be used to identify the plant, such as: numerous cluster-cristals of calcium oxalate (in all organs); numerous subulated and non-cistolytic covering-trichomes (in herb), spheric pollen-grains, with a finely-pitted exine and three pores (in flowers). Mucilages and phenolic compounds (phenolcarboxylic acids, flavonoids, tannins, proanthocyanidines) have been identified in all four extractive solutions. The content of the active principles varies depending on the raw material and the extraction method. Generally, the decoction obtained from the aerial part has the highest contents of active principles.

Conclusions: The results of this study partially explain the use of the plant in the treatment of dysentery, but, in the same time, suggest other therapeutic effects that should be investigated for use (e.g., analgesic, capillaro-protective, demulcent).

ID 24 The Study of Cytotoxicity of New N-(arylcarbamothioyl) Benzamides for Development of New Biomedical Applications

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Objective: The aim of this study was to investigate the cell viability and the proliferation of new compounds having a 2-((4-ethylphenoxy)methyl)-N-(arylcarbamothioyl)benzamide framework.

Methods: The new compounds with thiourea skeleton, were prepared from 2-(4-ethylphenoxymethyl) benzoic acid which was refluxed with thionyl chloride in anhydrous 1,2-dichloroethane. The resulting 2-(4-ethylphenoxymethyl) benzoyl chloride was treated with ammonium thiocyanate under reflux in acetone, to obtain 2-(4-ethylphenoxymethyl)benzoyl isothiocyanate. The new compounds were synthesized in situ from the isothiocyanate and primary amines.

The mentioned acid resulted from the potassium salt of 2-(4-ethylphenoxymethyl) benzoic acid by treating with hydrochloric acid and the potassium salt was obtained from phtalide and potassium para-ethylphenoxide in xylene.

The LIVE/DEAD test

To assess the viability of cells embedded in alginate hydrogels treated with the new compounds, 3-D cultures were fluorescently labeled with the LIVE/DEAD kit (Invitrogen) and visualized under the fluorescence microscope.

The MTT test

Treatment of cell cultures (subject to new compounds) with a solution of [3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide] allowed the evaluation of oxidative metabolism and the response to external factors that may have a positive or negative effect on viability.

Results: The chemical structures of the new compounds assigned by IR and NMR (1H, 13C) spectroscopy.

The results indicated that 2-((4-ethylphenoxy) methyl)-N-(4-n-buylphenylcarbamothioyl)-benzamide and 2-((4-ethylphenoxy)methyl)-N-(2-nitro-4-chlorophenylcarbamothioyl)benzamide have affected the viability of cells to a very high degree. The microscopy images confirm the quantitative data.

Conclusions: The screening of cellular viability and proliferation demonstrated that 2-((4-ethylphenoxy) methyl)-N-(2-nitrophenylcarbamothioyl)benzamide and 2-((4-ethylphenoxy)methyl)-N-(3-nitrophenylcarbamothioyl)benzamide did not display cytotoxic effects on the cells embedded in layer shaped alginate hydrogels and therefore they could be used for biomedical applications.

ID 26 Evolution of Antihypertensive Drugs Prescription, Assessed on Medical Prescriptions Dispensed from Community Pharmacies in Bucharest – 2017 versus 2007

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Objectives: The paper is a retrospective study assessing the use of antihypertensive medication in community pharmacies over a 10-year period.

We evaluated the prescribing patterns of antihypertensive medication and how adherent to medication were the hypertensive patients.

Method: We identified and analyzed prescriptions containing arterial hypertension as diagnosis, dispensed in 2007 and 2017 (April to June), in two community pharmacies from Bucharest.

Results: 4635 prescriptions were analyzed (2437 from 2007 and 2198 from 2017), from which 2332 had a diagnosis of arterial hypertension (1188 in 2007 and 1144 in 2017).

In 2007, 48.65% of antihypertensive prescriptions contained a beta-blocker, compared to 62.79% in 2017. The percentage of prescriptions containing ACEI decreased from 70.96% in 2007 to 48.74% in 2017, while prescription of angiotensin II receptors inhibitors increased from 3.62% in 2007 to 23.74% in 2017. In 2007 59.26% of prescriptions contained a diuretic, increasing to 64.90% in 2017. Calcium channel blockers use increased from 20.88% in 2007 to 31.90% in 2017.

The use of fixed combinations increased in 2017 by 363.63% compared to 2007, the most commonly used one being between perindopril and indapamide (52.73% in 2007 and 50% in 2017).

In 2007, 10.94% of hypertensive patients did not buy all of the prescribed drugs from the pharmacy, giving up some of the treatment. In 2017, the proportion of these non-adherent patients amounted to 20.19%.

Conclusions: Low adherence to medication is a cause of suboptimal clinical outcomes. The observed trend of increasing use of fixed combinations is in line with actual guidelines for hypertension management.

ID 38 The Efficacy of a Prunus *Spinosa L. Aqueous* Extract on Streptococcus Mutans Strain

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Objectives: In recent years, more and more examples of antibiotic resistance have been described for all strains of streptococci and no antibiotic class appears to be unstable. The present study focused on the evaluation of the potential of a Prunus spinosa L. aqueous extract as a natural alternative source of synthetic treatment on the strain of Streptococcus mutans, a causative microorganism for caries, endocarditis, pneumopathy, suppuration or septicemia.

Methods: The study group consisted of 15 volunteer students who had used for one week the *Prunus spinosa L. aqueous* extract. The 10% aqueous extract was obtained from the pulp of the dried fruit harvested from Tulcea county, Romania. Saliva samples were collected by standard method prior to treatment to identify microbial agents in the oral cavity of volunteers and after 7 days of treatment. The first reading was made, meaning the evaluation of colonies of oral streptococci and the number of colony-forming units. At the same time dispersions were made on the blood-gel environment of colonies with Viridans hemolysis. Dilution was done by sowing with the 01 strain of Suspicious Saliva samples of Streptococcus mutans. The antimicrobial activity was determined by the diffusimetric method.

Results: In the group of volunteers where Streptococcus viridans dispersions were made, 3 volunteers with Streptococcus mutans were identified. After testing using the diffusimetric method on the strain of Streptococcus mutans, a significantly diameter of the inhibition zone was observed.

Conclusions: The aqueous extract inhibited Streptococcus mutans adhesion to 10%, this could lead to the use of this extract for the treatment of oral cavity infections with microorganisms that have developed resistance to previously known antibiotics.

ID 41 Development of Hypothetical Models Regarding the Antimicrobial and Antibiofilm Mechanism of Action for Some New Small Molecules

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Objectives: The present work aimed to develop hypothetical models regarding the antimicrobial and antibiofilm mechanism of action of some new small molecules.

Despite the urgent need of new antibacterial drugs in the past years, only few new antibacterial drugs have been developed. To move forward, a strategy adopted is to identify drug-like inhibitors against known targets, but which have distinct mechanisms of action, different from the currently available drugs. With unique modes of action against validated targets, these new molecules can be effective, but not prone to existing mechanisms of target-based resistance.

Materials and Methods: In our previous works we reported the synthesis and the anti-pathogenic potential of new small molecules with tricyclic 6.7.6 structure. Most of the compounds exhibited a broad spectrum of antimicrobial activity and also a good antibiofilm activity against the Gram-negative, non-fermentative *A. baumannii*. These new active compounds were subjected to molecular modeling studies in order to emphasize their possible mechanism of action. The studies were performed using Yasara program, Spartan'08 program and Protein data Bank (http://www.rcsb.org/).

Results: For the new compounds it was proposed as a possible mechanism of antimicrobial action the dihydropteroate synthetase inhibition, similar to antimicrobial sulfonamides and sulfones. Relating to antibiofilm activity a hypothetical model was developed, based on the inhibition of the N-acyl-homoserine lactone synthase (AHLS) as the possible target, taking into account that AHLS is involved in the intercellular communication, which has a pivotal role in the biofilms development by Gram-negative bacteria.

Conclusions: The molecular modeling studies gave us preliminary information on the possible mechanism of action of the new small molecules, suggesting that this complementary approach could be used in the design of more effective antimicrobial and antibiofilm agents.

ID 42 The Study of Obtaining New Imides with Potential Biological Activity

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Objective: The aim of the present work was the synthesis of cyclic imides as a class of bioactive compounds with potential biological activity. Cyclic imides as building blocks in the synthesis of drugs display different pharmacological activities. The present literature shows the importance of cyclic imides for drug design and development of new antimicrobial compounds. These are fundamental backbone in a variety of active synthetic compounds. Cyclic imides as a class of bioactive compounds possess several biological properties (antibacterial, antifungal, antiviral, analgesic, anti-inflammatory, anxiolytic, antidepressive, anticonvulsant, etc).

Method: In order to determine the optimal method of synthesis of the compounds having the proposed chemical structure we used several synthesis methods. In this paper we report an efficient and rapid method for the preparation of the new cyclic imides. A mixture of different hydrazides with phthalic anhydride or tetrahydrophthalic anhydride was refluxed for 5h in glacial acetic acid under anhydrous condition. The cooled concentrated solution was poured into ice-water. Solvent was removed under reduced pressure and residue was dried in desiccator.

Results: We synthesized and characterized new imide with potential biological activity. The synthesis was confirmed by nuclear magnetic resonance and infrared spectroscopy and the compounds were characterized by their physical properties (melting point, solubility). All the spectroscopic data confirmed the structures of the new compounds.

Conclusions: We have established an efficient and rapid synthesis method in order to obtaine new compounds with 1,3-dioxoisoindol and 1,3-dioxohexahydroindol moyeties. The structure of compounds was confirmed from the study of its spectral data.

ID 46 Evaluation of Lead and Cadmium Presence and Ergosterol Content of Two Edible Mushrooms Collected from Moraresti, Arges County

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The aim of our study consists in identification and quantification of lead and cadmium from two indigenous edible mushrooms, Cantharellus cibarius and Lactarus piperatus. Another objective represents the quantification of free, heterosidic and esterified forms of ergosterol contained in the raw material.

Material and methods: The basidiocarps of the mushrooms were harvested from Morareşti, Arges County in June and July, 2017. Immediately after collection, the samples were freeze-dried, followed by lyophilization and stored in a desiccator, until the beginning of the analysis. The identification and quantification of the heavy-metals was done using flame atomic absorption spectroscopy according to SR EN 14083: 2003 standard. The employed apparatus was PinAAcle 900T, Perkin Elmer spectrometer. The ergosterol's identification and quantification were performed by chromatographic means, using a HPLC Jasco UV-DAD. The chromatographic separation was achieved using an isocratic elution with methanol, a reverse phase column (C18) and a flow of 1 mL/min. Detection was done at 280nm. The UV spectra and retention time of standard ergosterol was used for ergosterol identification. Quantification was made using standard ergosterol calibration curve, previously obtained (linear between 0.10 mcg/mL – 500 mcg/mL, R2= 0.9989).

Results: According to Herbal drug monograph, European Pharmacopoeia 7th Edition, the lead and cadmium limits for raw materials are 5 ppm and 1ppm, respectively. For both raw materials, the heavy metal content doesn't exceed the mentioned regulation. The esterified form of ergosterol prevails against heterosidic and free forms for Lactarius piperatus (21.94 mg%) but not for Cantharellus cibarius. For the second mushroom the highest content of ergosterol was found as free forms (7.74 mg% against 6.74% - heterosidic form and 4.76 mg% in esterified forms).

Conclusion: There is no contamination with lead and cadmium above the required limits for both mushrooms. Lactarius piperatus is a richer source of ergosterol than Cantahrellus cibarius.

ID 59 Antimicrobial Activity of New O-aryl-carbamoil-oximino-dibenz[b,e]oxepins

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Objective: Taking into account the emergence of antimicrobial resistance and the urgent need for the development of novel anti-infectious agents, the aim of this study was to evaluate the efficiency of some new carbamoil-oximino-dibenz[b,e]oxepin derivatives against bacterial and fungal strains, in planktonic and biofilm growth state.

Method: The new O-aryl-carbamoil-oximino-dibenz[b,e]oxepins were obtained by refluxing the 11-hydroxymino-6,11-dihydro-dibenz[b,e]oxepin with arylisocyanates. For derivatives, encoded Ia, Ib, Ic and If, bearing the following aryl substituents 3-tolyl (Ia), 4-fluorophenyl (Ib), 3-clorophenyl (Ic) and 3-trifluoromethylphenyl (Id) have been assessed for their antimicrobial activity. For bioevaluation we have used reference and clinical microbial strains. We have used quantitative methods, to assess the efficiency of the tested compounds against planktonic cells (serial broth microdilution method to establish the minimal inhibitory concentrations) and adherent cells (violet crystal microtiter assay to determine the minimal biofilm eradication concentrations).

Results: The most active compounds against the planktonic microbial cells were Ia, Ib and Id against B. subtilis (MIC values of 4.8 - 39 μg/mL), Id on *S. aureus* (4.8 μg/mL) and *E. coli* (78 μg/mL) and Ia towards *C. albicans* (4.8 μg/mL). Regarding the anti-biofilm efficiency, the most active compound which inhibited the microbial biofilms developed by all tested strains, was Ic (MBEC values of 39 to 625 μg/mL). However, the most intensive antibiofilm effect was manifested by Ic, but only against *C. albicans* (4.8 μg/mL).

Conclusion: The tested compounds proved to be more active against Gram-positive and fungal strains, being less effective against the Gram-negative ones, probably due to the presence of a more complex structure of the bacterial wall, exposing an additional permeability barriers represented by the outer membrane. The most active compound was Id, bearing the methyl group.

ID 60 Preclinical Pharmacological Research on the Central Nervous System Effect of Some Associations of Plant Products

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Objectives: Evaluation of the antidepressant and anxiolytic effect of some associations of plant products, selected following careful analysis of the literature, to identify plant species used as adjuvants in the treatment of depression or anxiety.

Methods: We used lyophilized hydroalcoholic extracts from the following plant products: Passiflorae herba, Morus alba cortex, Angelicae radix. We combined the extracts two by two to identify the association with superior therapeutic activity. The extracts were administered to mice for 16 days. To evaluate the psychotropic effects of the associations, the experimental animals were subjected to a behavioral test battery: motor activity test, forced swimming test after acute administration, tail suspension test after 7 and 14 days, and finally we performed the elevated plus maze test.

Results: We found a decrease in the number of horizontal movements in the case of the group treated with Morus and Angelica, the difference of 29.35% compared to the control group being statistically significant ($p < 0.01$, *t*-Student). In the forced swimming test, the plant extracts did not alter the behavior of the animals after a single dose, unlike the sertraline reference substance, which decreased the immobilization time by 35.86% compared to the control group ($p < 0.05$, t-Student). In the tail suspension test, coadministration of Passiflora and Angelica extracts led to a reduction in immobilization time by 25.19% ($p < 0.05$, t-Student) after 7 days and by 24.65% after 14 days. In the labyrinth test, the three associations of plant extracts increased the time spent in open arms with percentages varying between 60 and 87%, but with no statistical significance.

Conclusions: The association of extracts obtained from Passiflora incarnata and Angelica archangelica produced a superior antidepressant effect and a lower anxiolytic effect, being the most optimal combination of the tested plants.

ID 62 The Influence of Solvents in the Simultaneous Determination of Ibuprofen and Paracetamol from Bulk and Tablets Using Spectrophotometric Methods

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Aims: Solvents can affect the fine structure of absorption curves as well as the intensities and wavelengths of maxim. In the present study, five simple UV spectrophotometric methods were developed for estimation of ibuprofen (IBU) and paracetamol (PARAT) in bulk and pharmaceutical formulations. Among these, the sensitive one can be confirmed by calculating limit of detection (LOD) and limit of quantification (LOQ) following the ICH guidelines.

Materials and methods: Absorbance measurements were made on double beam Jasco V-530 UV-Visible spectrophotometer, Jasco Inc., Japan, with spectral band width of 0.5 nm and wavelength accuracy of ± 0.3 nm with 10 mm matched quartz cuvettes (Vitrum Q-4) were employed. All reagents and the analytical standards of ibuprofen and paracetamol were purchased from Sigma-Aldrich. The purified water was generated by a Elga Veolia Purelab Chorus 1 water system.

Results and discussions: The wavelength maxima selected for ibuprofen and paracetamol in three different solvents were measured. The developed UV spectrophotometric method followed Beer's law in the range of 2 – 20 μg/mL for IBU and 2 – 15 μg/mL for PARAT. Based on LOD and LOQ values, the solvents were ranked acetonitrile > ethanol > methanol > 0.1 M NaOH > phosphate buffer solution pH = 7.4. The study clearly revealed the sensitivity of the method improved in the presence of organic solvents and among the two organic solvents acetonitrile and methanol. Acetonitrile was found to be more sensitive as it offered lowest LOD and LOQ values. The analytical parameter such as linearity, A (1%/1cm), limit of detection (LOD), limit of quantification (LOQ), intermediate precision, molar absorption coefficient and Sandell's sensitivity were calculated.

Conclusions: The study clearly revealed that the solvents influence the determination of ibuprofen and paracetamol in combination, the methods described being rapid and easy, used for the routine quality control analysis of the two drugs in pharmaceutical preparations.

ID 63 Structural and Physicochemical Analysis of Protein Kinase Inhibitors in Cancer Treatment

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Introduction: In various types of malignancies, protein kinases play a pivotal role in cancer initiation and progression, being implicated in key processes that mediate cell survival and proliferation. In the past 20 years, 43 protein kinase inhibitors have been approved for the treatment of various types of cancer, with many more being under development in preclinical and clinical studies. As increasing knowledge in fields like proteomics and cancer signaling paves the way to new kinase inhibitors being developed, an analysis of current molecules can provide an insight into the structure-activity relationship, aiding in further design of anticancerous protein kinase inhibitors.

Objectives: This present paper focuses on the analysis of currently approved and in development kinase inhibitors, in the search for common structural and physicochemical motifs that can orient a medicinal chemist to provide a molecule with specificity for a certain kinase family or cancer cell type.

Methods: Approximately 100 protein kinase inhibitors, extracted from ChEMBL chemical database, were analyzed based on their structure and molecular descriptors using DataWarrior cheminformatics software. Their GI50 values from in vitro testing against 60 cancer cell lines coming from various tissues (lung, prostate, breast, skin, cervical, etc.) were obtained from the NCI database and corroborated with their pharmacodynamic profile to find similarities between cancer types and kinase inhibitors anti-proliferative activity using SPSS Statistics 20 software.

Results: The results provide a decision tree type of algorithm to identify new protein kinase inhibitors based on the NCI60 anti-proliferative profile, correlated with major chemical scaffolds analysis.

Conclusion: The results of the study showed a correlation between the NCI60 anti-proliferative profile and the inhibition of some protein kinases, results that can be capitalize in future anticancer screening studies.

ID 69 The Antinociceptive Potential of Some Dry Extracts on Nociceptive Pain in Mice

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Objective: Pain is a symptom that commonly associates pathology. There are still many medical conditions for which an effective analgesic treatment with a reduced potential for adverse reactions is not available. In this context, we propose to investigate the effecacy of four dry extracts with pain potential (Mori albae cortex - the root bark of the Morus alba, Angelicae radix - the root of Angelica archangelica, Rosmarinus herba - the air side of Rosmarinus officinalis and Citrus pericarpium - the pericarp from Citrus aurantium) in an animal model of nociceptive pain.

Methods: In this experiment we used 150 adult male NMRI mice (30.5 ± 2,68 g-bw). The mice were divided into 15 groups. The control group received distilled water (0.1 mL/10g; p.o.) Reference groups were treated with tramadol 30 mg/kg, p.o. and diclofenac 10 mg/kg, p.o. Vegetable extracts were administered p.o. following doses: Rosmarinus officinalis and Citrus aurantium 250 mg/kg, 500 mg/kg/day and 1000 mg/kg/day; Morus alba 150 mg/kg, 300 mg/kg/day and 600 mg/kg/day; Angelica archangelica 200 mg/kg, 400 mg/kg/day and 800 mg/kg/day. The threshold for perceiving painful sensitivity was determined by hot plate test (Ugo Basile) and the writhing test. The two tests were performed after single dose at a distance of one week. The animals were initially subjected to the hot plate test prior to treatment and then 15, 30, 60 and 120 minutes after administration of the treatment. The writhing test was performed one hour after treatment.

Results: The experimental data showed analgesic effect in both tests for tramadol. Diclofenac showed analgesic effect only in writhing test. Angelica archangelica and Rosmarinus officinalis extracts had analgesic effect in the hot plate test, 120 minutes after per os administration. Angelica archangelica Rosmarinus officinalis and Morus alba extracts show analgesic effect in the chemical stimulus assay.

Conclusions: This experimental research makes a contribution to the discovery of plant extracts with therapeutic potential in combating pain.

Acknowledgement: This work was financed by the Contract no. 177/22.08.2017 Analgesic potential of dry extracts and active compounds in nociceptive and neuropathic pain (AlgoSTOP).

ID 74 Evaluation of Dose Dumping Obtained During *in Vitro* Dissolution Testing for Modified Release Pellets Containing a BCS Class I API

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Objective: The objective of the study was to evaluate the *in vitro* alcohol-induced dose-dumping for modified release pellets containing a highly soluble, highly permeable active substance (BCS Class I), and also to determine the impact of exposure time in acidic media on the modified-release matrix.

Furthermore, process parameters that can generate burst effect of active substance during in vitro dissolution, were also evaluated.

Materials: The quality of the API and the excipients was evaluated according to the current in force monographs described in the European Pharmacopoeia.

Industrial batch of modified release pellets were manufactured by a wet granulation, extrusion and spheronization and coating process.

The impact of exposure time in acidic media for the modified-release pellets was determined by measuring the active substance release at different sampling points in acidic media.

The *in vitro* dose dumping in alcohol test is performed by adding different concentration of alcohol to acidic media of 10%, 20% and 40% on a volume/volume (v/v) basis.

Furthermore, the *in vitro* burst effect was evaluated for different pellet size and correlated to critical process parameters.

Results: The exposure time in acidic media did not have any impact on the acidic release of active substance. However, an increase of dissolution for the second point was observed for modified-release pellets that were kept in acidic media for a longer time.

The formulation have significantly accelerated in vitro release with the increase in alcohol content.

Conclusions: Based on the obtained results, it can be concluded that the structure of the pellets was change due to the high concentration of alcohol or due to the higher exposure time in acidic media.

ID 88 Synthesis, Characterization and Antimicrobial Evaluation of New Compounds from Oxazoles Class Containing 4-(4-X-Phenylsulfonyl)phenyl Moieties

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Objectives: Scientific literature revealed that five-membered heterocyclic compounds from 1.3-oxazoles class present a particular interest in synthetic chemistry and because of their biological activity. Thus, 1.3-oxazole ring is an important pharmacophore in various antibacterial, antifungal (e.g. Sulfaguanole, Sulfamoxole), anti-inflammatory (e.g. Isamoxole, Oxaprozin, Romazarit), analgesic (e.g. Oxaprozin), anti-diabetic (e.g. Aleglitazar, Darglitazone, Farglitazar), muscle relaxant drugs (e.g. Azumolene). Moreover, the diaryl sulfone derivatives (e.g. Acedapsone, Amidapsone, Dapsone, Diuciphone, Promanide, Sulfoxone, Solasulphone) have been found to possess antibacterial, antiviral, antioxidant, anti-tuberculosis activities. Based on all above considerations, in the present study we report synthesis and characterization of new heterocycles from 1.3-oxazoles class wherein the 2-aryl fragment is 4-(4-X-phenylsulfonyl)phenyl with the aim to obtain biologically active substances. In the view of the therapeutic potential, the new compounds have been screened for their in vitro antimicrobial activity.

Methods: The acyclic precursors from N-acyl-□-amino ketones class were heterocyclized in Robinson-Gabriel synthesis conditions under the action of phosphoryl trichloride with the obtaining of new 5-aryl-2-[4-(4-X-phenylsulfonyl)phenyl]oxazoles derived from valine. The chemical structure of new compounds was confirmed by different spectral data (FT-IR, UV-Vis, MS, 1H-NMR, and 13C-NMR). Also, the purity of compounds was checked by RP-HPLC. The 1,3-oxazoles have been investigated in vitro for their antimicrobial activity against several bacterial and fungal strains. The evaluation was performed using the broth microdilution method in order to determine the minimum inhibitory concentration (MIC) values.

Results: Six new compounds from 1.3-oxazoles class were synthesized and characterized in order to assess their antimicrobial activity. The preliminary test results indicated that one compound has inhibitory ef-

fect against *C. albicans,* namely oxazole substituted with 4-(4-chlorophenylsulfonyl)phenyl moiety in 2-position and phenyl group in 5-position.

Conclusions: We described synthesis, characterization and antimicrobial evaluation of six new compounds from 1.3-oxazoles class containing 4-(4-X-phenylsulfonyl)phenyl moieties. These compounds not exhibited antimicrobial activity, except one of them against *C. albicans*.

ID 117 New Therapeutic Approaches in Treatment of Dyspepsia. Phytochemical Research

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Indigestion or dyspepsia is a disorder of digestion, which affects the upper digestive tract (esophagus, stomach and duodenum), and generally occurs as a consequence of a too rich meal, abusive fat consumption, or eating spoiled foods. Initiation of treatment should be done after the causes that triggered the disorder have been identified. Since ancient times, natural remedies are most used to treat indigestion.

Objectives: The current study presents phytochemical research on various herbs that can be used (as adjuvants) in the treatment of dyspepsia.

Methods: Phytochemical studies were carried out on Menthae folium, Chamomillae flos, Caryophylli flos, Zingiberis rhizoma, Agrimoniae herba, Melissae herba, Althaeae radix and Ananasi comos fructus, and extracts thereof obtained by lyophilization. Active principles that are of therapeutic importance have been identified, and then, mucilages, flavonoids and phenolcarboxylic acids have been assayed (using specific gravimetric or spectrophotometric methods).

Results: The following active principles were identified: phenolcarboxylic acids – in all herbal drugs, except Agrimoniae herba; flavonoids - in Menthae folium, Chamomillae flos and Melissae herba; mucilages – in Althaeae radix and Chamomillae flos; tannins – in Agrimoniae herba and Menthae folium. The results obtained for corresponding extracts are similar to that obtained for raw materials. Quantitative tests revealed 1.1383% phenolcarboxylic acids (expressed as caffeic acid) in Menthae extractum, 11.2% mucilages in Althaeae extractum and 0.1848 % flavonoids (expressed as rutin) in Chamomillae extractum. Three oral dosage-forms have been proposed: a medicinal tea (a mixture of Menthae folium, Melissae folium, Chamomillae flos, Zingiberis rhizoma), capsules (contain extracts of Agrimoniae herba, Althaeae radix, Caryophylli flos and Ananasi comosi fructus), and a syrop (contains extracts of Chamomillae flos, Menthae folium and Melissae folium).

Conclusions: The selection of vegetal raw materials with anti-inflammatory, carminative, spasmolytic, choleretic-collagogue, anti-emetic, antidiarrheal effects may be useful for the phytotherapeutic approach of this pathology.

ID 130 Analysis of Some Pollutants from Wild Edible Mushrooms

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Objective: Mushrooms, comparing to green plants, are capable of bio-accumulating more heavy metals found in the surface soil level. The study aims to determine the concentration of some trace elements and macroelements in soils and mushrooms and to establish a possible correlation of the results in order to detect potential pollution markers.

Materials and methods: The mushrooms were collected from adjacent zones of two neighboring cities (noted soil 1 and soil 2) during September - November 2017. The concentrations of seven trace elements (cadmium, cooper, zinc, lead, chromium, iron and nickel) and two macroelements (calcium and magnesium) were determined in both two edible species of mushrooms (Boletus edulis and Hymenochaete rubiginosa) and respectively soil samples where the mushrooms were determined by absorption spectrometry.

The multivariate analysis of the variance (MANOVA) was utilized to analyze two factors (mushrooms and area) and nine chemical elements found in mushrooms, using bootstrap approach. We analyzed each dependent variable in relation to both factors through the two-way analysis of variance (ANOVA). Our data were verified for normality using Shapiro-Wilk's test. We analyzed the influence of the concentration of some chemical elements from the soil on the concentration determined in the mushrooms. Statistical significance level was considered at 5% ($p=0.05$).

Results: In Hymenochaete rubiginosa samples were detected the highest concentrations of chromium (6.5 ± 2.2 μg/g) in soil 1 and highest concentration of lead (1.51 ± 3.3 μg/g) and cadmium (5.11 ± 1.2 μg/g) in soil 2. In Boletus edulis samples from soil 2 were detected the highest amounts of nickel (0.71 ± 1.9 μg/g) and zinc (2.61 ± 3.4 μg/g).

Conclusion: According to the statistical analyses results, Boletus edulis is a potential marker of soil pollution for some heavy metals with toxic effect for human healthy such as Nickel, Cadmium, Copper, Chromium and Iron.

ID 140 QSAR Models for the Prediction of Liver Toxicity Using the FDA DILIrank Dataset

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Objectives: Safety is a key concern in drug development and product labels often include adverse liver reactions in the information provided to the patients and prescribers. It is important, therefore, to be able to predict the potential of inducing liver toxicity for new drugs. For animal welfare and economic efficiency, computational models such as QSAR may be useful and there has been a constant interest for predicting liver toxicity with such tools. We hereby report on our models developed using machine learning algorithms and a second version of a dataset developed FDA.

Methods: The DILIrank dataset includes 1036 FDA-approved drugs, which are classified into four categories based on their ability to cause drug-induced liver injury (DILI). Because the fourth category ("Ambiguous-DILI-concern") includes products for which the causality of liver injury has not been established, this category has been dropped out. Molecular descriptors were computed using the Dragon software, version 7.0.4 and Mordred. The QSAR models were developed in the R computing environment (v. 3.5.1), using multiple machine learning algorithms (random forests, support vector machines, ADA boosting M1, Bayesian Additive Regression Trees, C5.0, and others). The performance of the models was evaluated through nested cross-validation ($n=5$ for the inner loop and $n=10$ for the outer loop).

Results: We have developed more than 25 QSAR models with different variables and algorithms, having a balanced accuracy of over 70%, sensitivity higher than 80% and specificity higher than 50%.

Conclusions: The models developed are useful for their purpose, but due to the heterogeneity of criteria in defining the level of concern and the „black-box" nature of the data (a variety of biological targets and mechanisms underlying the liver toxicity), modelling liver toxicity remains a challenge.

ID 145 Design and Evaluation of Lecithin/Tween 80 O/W Microemulsions for a Topical Anti-Acne Drug Delivery System: Insights from a Preliminary Study

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Objectives: This study had the aim to tailor a way in the development of biocompatible O/W microemulsions (MEs) using a mixture of two surfactants, associating vegetable oils, hyaluronic acid and salicylic acid as an anti-acne compound.

Methods: Designed as a preliminary study, the microemulsions formulation was based on the selection of an adequate concentration of lecithin from the range 0,5%-2% which could be able to induce microemulsion formation. Tween 80 was associated as a second surfactant and propylene glycol (PG) as a cosurfactant. Lecithin/Tween 80/PG mixture was combined with the oil phase, aqueous phase, hyaluronic acid and salcylic acid using the oil titration method. The nanodispersions were analysed as follows, taking into account the vizual appearance, pH and refractive index determinations, conductivity tests and rheological evaluations. The research was completed by pseudoternary phase diagram design.

Results: Over the analysis period, the systems were clear and stable. The pH values were placed in the near physiological range in the acidic zone, avoiding the bacterial proliferation specific to an acne-prone skin. The refractive index test proves the clarity of MEs, being an important physical parameter with a good influence for the formulation quality. The O/W type is well defined by the conductivity values, completed with the phase diagram which comprises the stability area of the formulations as a function of each concentration of the ingredients. Concerning the flow characteristics, the MEs have a Newtonian behaviour, being visualized in plots of shear stress as a function of shear rate, according with the Newton's law.

Conclusions: As a final remark, the evaluated systems have good properties and could be considered suitable dermatological alternatives for acne treatment and an example of elegant formulations with a superior tolerability, a quality that will be pointed out in future studies.

Acknowledgement: CNFIS-FDI-2019 0534.

ID 154 Formulation and Evaluation of Some Dermatocosmetic Emulsions for Skin Rejuvenation

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Objectives: The aim of this study was to design and evaluate some dermatocosmetic O/W emulsions as a natural alternative for skin rejuvenation. The systems are considered functional cosmetics due to a synergistic mixture of collagen hydrolysate and caffeine, in addition, the vegetable and essential oils enriching the properties of the formulations.

Methods: The emulsifying method was applied to form stable colloidal systems which were then analysed from organoleptic point of view, pH, water and volatile compound content, optical microscopy and rheological behaviour. The flow properties were tested through stationary shear analysis using a rotational viscometer, at 23o±0.1°C and 32°±0.1°C, thereby observing the behaviour at room temperature and at skin surface. The shear stress, as a function of shear rate forward and backward rheograms, as well as the viscosity versus shear rate profiles were recorded.

Results: The visual examination gived results in matter of colour, appearance and odor correlated with the emulsions composition. No phase sepparation was observed upon the characterization period. The pH values are between 5.5-6.0, indicating that emulsions can be safely applied on the skin. The morphological analysis revealed a homogeneous structure for all the emulsions. The formulations showed a non-newtonian shear-thinning and thixotropic behaviour at both operating temperatures, facilitating the formulations flow and topical administration. The flow properties were quantified according to the Power law model, and the thixotropic analysis was performed using specific descriptors as thixotropic area and thixotropic index.

Conclusions: It could be appreciated that the designed emulsions have adequate physical-chemical properties for cosmetic skin care product formulations. Moreover, the presence of the collagen hydrolysate and caffeine implies an improvement in skin elasticity and a protective effect against UV radiation associated especially in the sensitive and aged skin.

Acknowledgement: The authors acknowledge the financial support from the project PN 19 17 03 02.

ID 168 In Silico Drug Repurposing Approaches for Discovery of TRPA1 Inhibitors

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Objective: Multiple sclerosis is an inflammatory CNS disorder that affects and destroys the myelin sheaths. It previously was discovered that TRPA1 gene knockout in mice prevented cuprizone-induced demyelination and oligodendrocytes apoptosis. The aim of this paper was to perform an in silico screening using drug repurposing strategies in order to discover new candidates for TRPA1 inhibition, with potential utility in demyelinating diseases.

Methods: Structures of TRPA1 inhibitors and marketed drugs or other drug-like compounds were downloaded from ChEMBL and DrugBank databases. Molecular descriptors were calculated for both datasets using the CDK 1.5.15. Structure-activity relationships analysis of TRPA1 inhibitors was performed with DataWarrior in order to identify structural features needed for high biological activity An optimal QSAR model was generated using IBM SPSS Statistics 20 and was applied on the screening set for activity prediction. Hit compounds with good results were included in a molecular docking study using human TRPA1 structure (PDB: 3J9P) and AutoDock Vina 1.1.2.

Results: Several structural scaffolds and fragments of TRPA1 inhibitors were found to possess a significantly higher biological activity ($p<0.01$) and were used as a mining tool for retrieving candidates with similar features. The QSAR regression model chosen yielded a promising number of compounds with high predicted potency. The most promising compounds were chosen based on predicted pIC50 values, receptor affinity expressed in free binding energy (Kcal/mol) and protein-ligand interactions.

Conclusions: Based on the promising in silico screening results, a selection of candidates was made for inclusion in further studies to confirm the inhibitory effect on TRPA1 channels.

ID 187 Premises for the Antitumour Activity of a Novel Ru(III) Complex. Spectral and Computational Studies Regarding Its Interaction with Biomacromolecules

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Objectives: Following the selection of two Ru(III) complexes for clinical trials, namely imidazolium trans -[tetrachlorodimethylsulfoxideimidazoleruthenate(III)] (NAMI-A) and indazolium trans-[tetrachlorobis(1H -indazole)ruthenate(III)] (KP1019), ruthenium complexes have emerged as potential antitumor agents. As nucleic acids/ proteins play a significant role in the potential antitumor effect of low molecular weight compounds, such as metal complexes, molecular recognition of these biological targets is of tremenduous importance. Hence, this study focuses on the interactions of a newly synthesized Ru(III) complex, Ru(ferron)2Cl (where: Hferron = 8-hydroxy-7-iodoquinoline-5-sulfonic acid), with calf thymus DNA, apotransferrin (apo-Tf) and human serum albumin (HSA), as premises for its antitumor activity.

Methods: Mechanistic aspects regarding the interaction with the specified biomolecular targets were investigated by means of UV–Vis absorption binding studies and fluorescence titration. Full geometry optimization of the complex was carried out using density functional theory methods included in Gaussian 09. Molecular docking studies were further employed to confirm the interaction of the complex with biomacromolecules.

Results: This study has revealed that Ru(ferron)2Cl displays strong interaction with calf thymus DNA, with a binding constant, Kb, ~ 104 M−1. The interaction with HSA is characterized by Kb ~ 106 M-1; the complex exerts a weaker affinity towards apo-transferrin (Kb ~ 104 M-1). Furthermore, the results indicate the existence of a single binding site in both apo-Tf and HSA. The values calculated for the quenching rate constant, Kq, (>1011 M-1 s-1) indicate the existence of a static quenching mechanism.

Conclusions: Ru(ferron)2Cl binds strongly to double-stranded DNA, most probably via an intercalation mechanism, hence the potential use of this complex for anticancer therapy. Moreover, the complex binds albumin with higher propensity over apo-Tf. Another advantage is represented by the solubility in water of the complex, a rare and highly sought trait for metallodrugs.

ID 191 Evaluation of Dissolution Profiles of Newly Developed Immediate Release Formulation Containing N-acetyl-cysteine

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Introduction: Acetylcysteine (N-acetyl-L-cysteine), also known as N-acetylcysteine (abbreviated NAC), is a well-known medication used to treat paracetamol (acetaminophen) overdose and to loosen thick mucus in patients with cystic fibrosis or chronic obstructive pulmonary disease. Nowadays, NAC is used also as a dietary supplement, because it helps boost production of glutathione (GSH), an important antioxidant naturally produced by the body, which helps reduce free radical damage. NAC is both safe and inexpensive, has a wide array of health benefits being a food supplement worthy of consideration.

Objective: The main objective of this study was to develop and test one solid oral formulation with NAC as active ingredient, having a similar bioavailability as the reference product. The newly developed product was formulated as 200 mg hard capsules with immediate release. We performed in vitro dissolution studies to evaluate and compare the two products.

Methods: The dissolutions profiles were compared using the following conditions: baskets dissolution apparatus, rotation speed 100 rpm, 500 mL distillate water as dissolution medium (the media intended for drug product release QC media), 37±0.5°C temperature, 30 min dissolution time and Q min. 75%.

Results: The results of the dissolution studies showed that the percentage of N-acetylcysteine dissolved after 15 minutes is 101.7% for the new developed formulation, compared to 96.5% for the reference product.

Conclusions: In line with current regulations, it can be concluded that the dissolution profiles are similar without calculating the f2 similarity factor, as more than 85% of the active ingredient was dissolved in 15 minutes. With this positive result in QC media, the next step is to further investigate the similarity between the newly developed immediate release formulation containing N-acetyl-cysteine and the reference product, by performing in vitro dissolution tests at pH 1.2, 4.5 and 6.8.

ID 195 Quality Control of Piroxicam Tablets

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Objectives: The purpose of this study was to develop some sensitive, fast and accessible methods of analysis for the quality control of indigenous piroxicam tablets available on the Romanian pharmaceutical market.

Methods: Were studied three indigenous pharmaceutical products containing piroxicam 20 mg /tablets. Identification of piroxicam was done by two methods: a UV spectrometric method (by recording the spectra of standard and sample solutions using a Jasco V-530 spectrophotometer) and a thin-layer chromatographic method (TLC), using silica gel F254plate as chromatographic stationary phase and chloroform: acetone 80:20 (v:v) as mobile phase; Camag densitometer, UV lamp □ = 254 nm. For the assay of piroxicam a UV spectrometric method (□max = 358 nm) was developed.

Results: The identification of piroxicam by TLC was positive as the Rf value obtained for the standard solution was similar to that obtained for the sample solutions (Rf ~ 0.51). The UV spectra confirm the positive identification of the piroxicam (three maximums of absorption at 358 nm, 289 nm and 256 nm) in all analyzed pharmaceutical products.

The assay method was validated by the following parameters: specificity, precision (RSD <2%), linearity, accuracy and quantification limit. A linear regression curve with correlation coefficient r2 = 0.999844 was obtained in the range of 0.0025 - 0.0200 mg/mL. The external standard method was used for the quantification of piroxicam in tablets. Experiments were performed in triplicate. The quantity of piroxicam obtained from the tablets which were considered in the study subscribes within the admissible limits 95-105% (95.25%, 95.67%, 95.51%) of the stated amount.

Conclusions: Identification of piroxicam by UV and TLC was positive. The content of piroxicam was in line with the requirements of current European Pharmacopoeia (95-105% of stated amount) for all the analyzed formulations.

ID 197 Experimental Design for the Optimization of the Essential Oil Extraction Process from Thymbra Spicata

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Objectives: Nowadays the more and more frequent use of natural products, rich in essential oils with different pharmacological actions, is being sought for therapeutical purpose to develop new drugs with maximum efficacy and minimum side effects. But, a major issue encountered in the essential oils extraction consists in the low yield of the process. Thus, the goal of this paper was to investigate the effect of some operating conditions on the essential oil extraction process from Thymbra spicata, using statistical experimental techniques.

Methods: The plants were harvested from Antakya-Hatay, Turkey. In order to optimize the essential oil extraction, a 3-factors-3-levels factorial fractional design was used. The independent variables were: X1 – boiler occupancy rate (boilers were filled to 50%, 75% and 100%), X2 – the distillation duration (distillations was continued 60, 75 and 90 minutes), and respectively X3 – particle size (herba were cut in size 10, 20 and 30 mm via guillotine). The dependent parameters selected were: Y1 – the essential oil volum obtained (mL) and Y2 – the extraction process yield (%).

Results: The relation between each response and the input variables was illustrated by response surface analysis. Using the signal-to-noise indicator suggested by Taguchi for the criteria that have to be maximized (larger is the better), the optimal combinations of the operating parameters leading to the most stable, robust and insensitive to the noise factors responses were set.

Conclusions: From the practical point of view, this modern approach reduces the number of experiments, saving time and costs and ensuring in the same time the preservation of the process quality at a constant level.

Acknowledgement: The authors acknowledge the financial support from the project PN 19 17 03 02.

ID 198 The Quality of Some Hydrochlorothiazide Drug Products Registered in Different UE Countries

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Hydrochlorothiazide (HCT or 1,1-Dioxyde de 6-chloro-3,4-dihydro-2H-1,2,4-benzothiadiazine-7-sulfonamide) is a thiazide diuretic included in the World Health Organization's List of Essential Medicine. It is used for the treatment of hypertension, congestive heart failure, symptomatic edema, diabetes insipidus and renal tubular acidosis. Hydrochlorothiazide is also used to prevent osteopenia and for treatment of hypoparathyroidism, hypercalciuria, Dent's disease, Ménière's disease and osteoporosis. In the present study, we focus on testing the quality of some HCT drug products registered in two different UE countries using simple, cost-effective and reliable methods of analysis.

A thin layer chromatography (TLC) method, with ethyl acetate: methanol: ammonia 85:10:5 as mobile phase, was used for qualitative analysis. A UV-spectrophotometric method was used for qualitative and quantitative analysis. Two solid oral formulation containing 25 mg HCT/tablet, one available on the Romanian pharmaceutical market and one available on the Greek pharmaceutical market, were analyzed.

A positive identification of HCT was obtained in the products studied by both methods of analysis used. For the assay of HCT in drug products, external standard method (λ=270 nm) was used and the two medicines were analyzed in triplicate. The content in HCT was in the range of 95 – 105%, in line with the requirements of current European Pharmacopoeia for all the analyzed formulations. Also, other quality parameters were tested and founded within acceptable limits: description, uniformity of dosage units, hardness and friability.

The obtained results indicated that European Pharmacopoeia quality standard are fulfilled by all tested HCT drug products purchased from Romanian or from Greek pharmaceutical market, showing a consistent quality of medicines in the EU as we expected.

ID 232 Optimization of a UHPLC Method for CBD in Hemp Seed Oils

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Hemp seed oil has been promoted as a good source of nutritiuos omega-6 and omega-3 polyunsaturated acids. Scientific knowledge regarding the composition and health benefits of edible hemp products has significantly increased in recent years.

Hemp seed oil from *Cannabis sativa L.* is a rich natural source of important nutrients, not only polyunsaturated fatty acids and proteins, but also terpenes and cannabinoids, which contribute to the overall beneficial effects of the oil. Hence, it is important to have an analytical method for the determination of these components in commercial samples.

Objectives: The present work describes a technique for the monitoring the cannabidiol-CBD present in commercial hemp seed oils by UHPLC with PDA detection, for the qualitative and quantitative determination of the cannabidiol (CBD).

Material and methods: hromatographic separation was achievied using a PerkinElmer Brownlee Analytical C18 column (50mm×4,6mm i.d., 5μm) or equivalent, using and gradient elution with 0,1% formic acid in water as mobile mobile phase A and 0.1% formic acid in acetonitrile as mobile phase B. The flow rate was 0,4mL/min and the injection volume was 5μL. For quantification, the detection wavelength was set at 210 nm.

Conclusions: Following the practice of designing experiment, multi-line predictive models have been developed and used to find optimal chromatographic analysis conditions. This analytical method can be used for various applications, e.g. quantitative and qualitative control of CBD oil by a selective, simple and rapid method.This work has demonstrated the effective cromatographic separation and quantitation of CBD, in hemp seed oils using the PerkinElmer UHPLC system with PDA detectors.

ID 238 The Formulation, Preparation and Comparative Evaluation of Some Cosmetic Formulations with Aloe Vera Oil and Aloe Vera Gel

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Objectives: The study was aimed at the formulation and preparation of some cosmetic products with Aloe vera-derived ingredients, followed by the evaluation of some properties of the experimental cosmetic formulations (pH and some effects on skin, such as moisturizing and erythematogen effect and transepidermal water loss). Four experimental formulations were developed, differentiated by the level (16%, respectively 32%) and the type of active ingredient included (Aloe vera gel or Aloe vera oil). The experimental formulations were prepared at laboratory scale and their organoleptic and pH characteristics were assessed. Also, the effect of all formulations on skin hydration was evaluated.

Methods: In order to investigate the impact of the nature of active ingredient and of the percentage in the formulation on the characteristics of the experimental products, four experimental formulations were considered and prepared in the pharmacy laboratory, in GLP conditions. Two of the formulations included Aleo vera Gel (16% and 32%), while the other two included Aloe vera Oil (in the same concentrations). The appearance and pH of the resulting experimental cosmetic products were evaluated. Furthermore, the effects of application of all products for seven days on skin hydration were assessed using a Multiprobe Adapter 5 equipment (Courage+Khazaka GmbH, Germany).

Results: The experimental products had a pleasant appearance and skin-compatible pH values. After the application of the cosmetic creams on different skin areas for seven days, an increase of the skin hydration was observed. Significant skin nmoisturizing effects were recorded for the experimental cream containing the higher percentage of Aloe vera Oil.

Conclusions: The results suggest skin moisturizing of the experimental cosmetic products. All products proved to be non-erythematogenic, manifesting a soothing, moisturizing effect on the skin. The most suitable formulation proved to be the ceram containing 32% Aloe vera Oil.

ID 22 Cardiac Autonomic Regulation: Impact of Age

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Introduction: Variations in cardiac autonomic regulation have been associated with cardiovascular diseases including arterial hypertension, heart failure, and sudden cardiac death. As age is an important risk factor for many of these cardiovascular disorders, we aimed to assess the effect of age on heart rate variability (HRV) parameters as markers of sympathetic and parasympathetic modulation.

Methods: Two groups of healthy male Wistar Kyoto (WKY) rats were assessed: 14 weeks old (young; n=8) and 28 weeks old (adult; n=7). All animals were implanted with radiotelemetry ECG devices and a 72-h continuous ECG recording was performed. Heart rate variability was assessed in both time and frequency domains and compared between the two groups.

Results: There was no significant difference between the two groups in heart rate (338 ± 41 bpm. vs. 330 ± 44 bpm; p=0.70), parasympathetic nervous system (PNS) activity parameters (all p >0.05), nor in the low frequency components of HRV, a marker of sympathetic nervous system (SNS) activity (2.07 ± 0.92 ms2 vs. 1.99 ± 1.5 ms2; p=0.90). The sympatho-vagal balance was also similar between the two groups (0.23 ± 0.05 vs. 0.21 ± 0.04; p=0.30).

Conclusions: The present study showed no difference in sympathetic and parasympathetic cardiac modulation between young and adult WKY rats, which might be due to the small between-groups age difference. Further studies including older subjects are needed to evaluate whether HRV is influenced by age and whether an age-dependent autonomic imbalance, if present, could contribute to the higher cardiovascular disease burden seen in the elderly.

Acknowledgments: This work was supported by a grant of the Ministry of Research and Innovation, CNCS-UEFISCDI, project number PN-III-P1-1.1-TE-2016-0382, within PNCDI III.

ID 30 A Novel Biomarker in Diastolic Dysfunction with Preserved Ejection Fraction

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Objectives: The literature referring to cardiovascular pathology places myeloperoxidases together with matrix metalloproteinases (MPM) and with the CD40 soluble ligand (sCD40L) in the category of biomarkers who indicate an instability and a rupture of the aterom plaque. We also mention that until present, according to our documentation, the role of MPO has not been investigated in the myocardial remodelling processes induced through oxidative stress, hence our reasons for the current study.

Materials and methods: We aim to look at the increases in serum levels of myeloperoxidase (MPO), which is a marker of myocardial remodelling of the post infarct ventricle and as an indicator of cardiac insufficiency progression, in the context of diastolic dysfunction with preserved ejection fraction in order to see whether there are any similarities. For the myeloperoxidase dosage we used immunofluorescence (FEIA), which used purified MPO from human neutrophils as an antigen. This method quantifies anti-MPO antibodies, who are involved in vascular inflammation pathogeny as responsible co-participants in endothelial dysfunction aetiology in arteriosclerosis, as reported by the literature.

Results: The analysis of the circulant total cholesterol highlighted that 80 patients (87.9% cases) showed high cholesterol values and only 11 patients (12%) had results which would impose a correction of their unhealthy eating habits. The MPO quantification with immunofluorescence (FEIA) highlighted a superior level of 7 U/mL in 67 cases. This is 2.7 more than the cases with negative results. For the circulating MPO the percentage of positive results is 73.6% and it indicates that for the patients suffering with chronic diastolic dysfunction caused by ischaemic cardiopathy, which conserves the systolic debit volume, the FAIA test is more sensitive compared with when applied in cases where there are electrocardiographic ischaemic lesions.

Conclusion: The current study demonstrates the usefulness of using serum MPO as a diagnosis biomarker for diastolic dysfunction (DD) with heart failure with preserved systolic function (HF-PSF). If it is not possible to perform the echocardiography, serum MPO is useful in evaluating the risk for DD with HF-PSF.

ID 33 Exploratory Trend Analysis of Illicit Substance Consumption in Romanian Teenagers – Can Documented Trend Analyses Specifically Guide Public Health Policies?

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Aim: An exploratory trend analysis of illegal drugs in Romanian teenagers to assist with information national public health programs related to mental health and communicable diseases (including the notifiable diseases sub-program).

Objectives: 1) To identify and explore epidemiologically associated factors which define addictive behaviour and attitudes in teenagers; 2) To explore the information collected via secondary sources of Romanian and European data (epidemiological surveys part of cross-sectional studies).

Methodology and methods: quantitative methodology having explored two secondary sources for trend in substance use. Samples and setting are described at www.espad.org. Methods included exploration of EMCDDA reports and survey items for self-reported prevalence of illicit substance use from the ESPAD (European School Survey Project for Alcohol and other Drugs). Ten variables were explored for trend (1999; 2003; 2007; 2011 and 2015). Smoking: lifetime last-month prevalence, start before the age of 13 yrs, proportion on daily basis at the age of 13 yrs. Drugs: lifetime, past 12 months and past 30 days (marijuana). Alcohol: drunk in the past 12 months and past 30 days (≥3 times). Trends were illustrated and described with the use of Microsoft Excel.

Results: Of interest for this communication are the following trends (1999 to 2015): lifetime use of cigarettes declined in boys (67% to 52%) but stays unchanged in girls (51% to 52%); last 30-day prevalence small increase (24% to 29%); in girls (20% to 30%). Lifetime marijuana use increased (1% to 7%); last month use reached (0 to 1%). Abstinence from any illicit substance use changed (10% to 16%). Drunkenness on ≥3 occasion/last 30 days has not changed (10% to 11%).

Conclusion: Behavior and attitudes in illicit substance use point towards a polarisation of outcomes (lifetime use/abstinence) in trend. This information is useful for public health policies and will be reported in detail.

ID 57 Is Cardiography of Impedance Useful for Pregnant Women?

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Objectives: Identifying the response of anxiety by impedance cardiography.

Studying the consequences of anxiety on heart activity of pregnant women.

Highlighting some comparisons and correlations both between study and control groups and within the same group by analyzing different parameters.

Material and method: Type of study – type 2 cohort

Number of people – 20 women in antepartum stadium and 10 non-pregnant women.

Location - Bucur Maternity in Bucharest and Physiology I at the "Carol Davila" Medicine and Pharmacy University.

Measured parameters:
Cardiac frequency;
Systolic volume;
Systolic blood pressure;
Diastolic blood pressure;
Cardiac flow;
Systemic vascular resistance.

Results: 1. The mean values of the systolic blood pressure, cardiac flow and systolic volume, measured antepartum, are significantly increased compared to those measured in non-pregnant women.

2. The average values of diastolic blood pressure and heart rate, measured in pregnant women, show no significant changes compared to those measured on non-pregnant women.

3. The mean value of systemic vascular resistance, measured in pregnant women, is significantly reduced compared to that measured in non-pregnant women.

4. Antepartum anxiety can be controlled and corrected therapeutically by continuous monitoring of cardiac activity.

Conclusions: Impedance thoracic cardiography is an alternative method of monitoring heart function because it is easy to use, cost-effective, reproducible and less dependent on operator-interpretive than ultrasound.

ID 67 Adoptive Transfer of NK Cells for Immunotherapy in Melanoma-Bearing Mice

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Introduction: Cancer represents one of the major causes of mortality, despite huge research efforts for deciphering the molecular mechanisms of disease and for developing new targeted and personalized therapeutic approaches with acceptable side-effects. Successful adoptive cell transfer (ACT) and ex vivo modulation of cellular functions with cytokines has aroused the interest for immunotherapy in cancer. Currently, immunotherapy is known as the forth treatment alternative in cancer, after surgery, chemo- and radiotherapy. We investigated whether adoptive transfer of IL-12/15/21–preactivated NK cells reduces growth of established mouse tumors. Our results raise the possibilities for the development of novel NK cell–based therapeutic strategies for clinical application.

Materials and methods: NK cells were isolated by negative selection from spleens of C57BL/6 mice, 8-10 weeks old, with the NK cell isolation kit and treated with 10 ng/ml IL-12, 10 ng/ml IL-15, and 100 ng/ml IL-21 or 10 ng/ml IL-15 for 20 h. Mice were s.c. injected with 105 B16F10 cells and received adoptive transfer of NK cells at day 7 after tumor cell inoculation. Tumor diameters were measured weekly by a caliper, and the tumour volume was calculated by the following formula: tumour volume = 4π r3/3.

Results: IL-12/15/21–preactivated NK cells persisted in spleen for 3 weeks after adoptive transfer with high effector function. Adoptive transfer of IL-12/15/20–preactivated NK cells in mice significantly reduced tumor growth of recipient mice.

Conclusions: Based on results from experimental animal model, adoptive transfer of cytokines-preactivated NK cells seems to be promising for cancer therapy. There is no doubt that NK cells have major role in cancer treatments, and in the future, NK cell immunotherapy from "a new hope" may become „a reality" for malignant diseases.

Acknowledgement: This work was partially supported by Core Program, implemented with the support NASR, projects nos. 19.29.02.03 and 7PFE/16.10.2018.

ID 68 Circle of Willis Configuration Variations – a Pilot Study

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Objectives: To investigate the type and frequency of anatomical variations in the configuration of the Circle of Willis (CoW) in a random population investigated through magnetic resonance angiography (MRA). To classify the anatomical variants in respect to the category of development anomaly. To compare the results to other literature studies in various populations.

Method: A number of 116 patients (62 male, 54 female) were included in this study, that underwent a MRA for various clinical suspicions between January 2011 and December 2011 on a 1,5T Magnetic Resonance Machine. The MRA method was a 3D time-of-flight sequence with three plane reformatting and maximum intensity projections examined on a dedicated workstation.

Results: Thirty-eight patients presented a normal CoW configuration. Sixteen patients showed hypoplasia of posterior communicating artery (n=10) or P1-posterior cerebral artery (n=6). Fourteen patients had an absent anterior communicating artery, while 10 patients had absent A1-anterior communicating artery. Ten patients presented an fetal type posterior carotid artery from the internal carotid artery. Six patients presented incidental aneurysms, while the rest (n=22) had various anatomical variants.

Conclusions: This pilot study demonstrated a normal configuration of CoW in 32.7% of the investigated population. This data is similar to other reports that cite a normal CoW in about 20 to 50% of the general population of other countries. A good knowledge of the anatomical variations in the general population may be a key factor in predicting symptoms, pathogenesis or effects of cerebral vascular events or their treatment. A further, more extensive and detailed study should follow, to provide insight into the true incidence of anatomical variants of the CoW in the Romanian population.

ID 72 MicroRNAs – Potential Implications in Hepatocellular Carcinoma

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Objective: Hepatocellular carcinoma is an intensely studied disease and the role of microRNAs in the oncogenesis of the illness has not been entirely discovered. The goal of this paper is to outline new findings under this subject matter and to identify new research perspectives.

Methods: The expression of the studied microRNAs (miR-122, miR-21, miR-192-5p, miR-29a-3p, miR-145) has been analysed, using RT-PCR, on the included patients who were diagnosed with hepatocellular carcinoma.

Results and conclusions: The microRNAs mentioned above are molecules with multiple implications. One of them might be the possible involvement in the oncogenesis of hepatocellular carcinoma. MicroRNAs might be placed among future biomarkers used in early diagnosis of this disease and in a more effective evaluation of the patient. Furthermore, there are a series of microRNAs which can serve as important tools in treatment monitoring.

Some microRNAs might be innovative biomarkers in evaluating the severity of complications encountered in patients with hepatocellular carcinoma. Furthermore, it is useful to find new research areas concerning the role of these molecules in a more efficient staging of this disease.

ID 73 The Role of MicroRNAs in Evaluating Patients with Autoimmune Diseases

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Objective: Autoimmune diseases and their immunopathogenic mechanisms are of recent interest and there are numerous opinions which claim that microRNAs play an important part in the development of such illness. The current paper has the main goal of outlining some newly made discoveries under this subject matter, with a thorough identification of the best ways of using the potential of the noncoding molecules. New research perspectives are also established.

Methods: The study of a series of microRNAs (miR-21, miR-146a, miR-142-3p, miR-197) was performed, using RT-PCR. The included patients were selected from the Neurology and Gastroenterology Departments from „Fundeni" Clinical Institute. All of them were diagnosed with a certain autoimmune disease.

Results and conclusions: MicroRNAs participate in pathogenic mechanisms found in autoimmune diseases. The studied molecules use complex signaling pathways and, as a result, their expression might be involved in the evaluation process of a patient with an autoimmune disease. Furthermore, microRNAs prove their importance as biomarkers in diagnostic procedures performed on such people. These noncoding molecules may also function in monitoring illness evolution.

MicroRNAs might play an important role in diagnosing patients with autoimmune diseases and in identifying the encountered complications. Furthermore, it might be of great interest to further explore the usefulness of microRNAs as biomarkers in evaluating the treatment response, and as potential therapeutic targets.

ID 82 Methodology for Evidence Brief for Policy – a Supporting Tool for Health System in Addressing Antimicrobial Resistance

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Objective: Presenting the Methodology for an Evidence brief for policy- a tool to support the health system in addressing antimicrobial resistance.

Methodology: Evidence brief for health policy is a type of research made by scientists for a non-specialist public. The decision makers or decision influencers in health can be people with or without medical background, with or without scientific research knowledge or just not familiar enough about the specific domain were the decision is needed.

Results: The methodology is particular in the fact that combine specific methods from problem definition, identification and classification, scientific databases search strategies, evidence based methodology critical appraisal, and participative options assessment.

Conclusion: The challenge in itself is to respect and successfully mix all the methodologies and produce the final report in a non-medical specific writing style.

ID 83 Romanian Validation of the Communication Skills Ability Scale (CSAS)

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Aim: To assess the attitude and the willingness of medical students for learning communication skills. **Objectives:** 1) To validate the Romanian version of CSAS (Scala de Evaluare a Atitudinilor privind Abilităţile de Comunicare, SEAAC) with a second sample of Romanian medical students from the Faculty of Medicine, UMF Carol Davila; 2) To recommend the validated Romanian version of CSAS (SEAAC) for use in all study years (I to VI) and in other medical schools.

Methodology and methods: Methodology is quantitative.

Methods: Data were collected electronically and anonymously during public health and management modules (UMF Carol Davila). The second Romanian version of CSAS (SEAAC) was distributed to all year 5 medical students (October 2018 - April 2019). The scale consists of 26 items plus socio-demographic characteristics. We carried out a second analysis of the psychometric characteristics to validate the self-administered questionnaire with: factor analysis (FA), principal component analysis (simple PCA and PCI, with iteration) and construct validity (Cronbach-ά). Quality of cultural and linguistic adaptation was re-evaluated. Data analysis was carried out with Stata 15.

Results: 497 year V students responded; Distribution by sex (% from first analysis): 31% (21%) men and 68% (79%) women. The second analysis of the psychometric characteristics shows: Cronbach-ά coefficient = 89% for the 26 item-scale; and 91% for a 20-item scale (showed optimal in the first analysis in a 361 student sample, 2018). The IPF (iterated principal factor) analysis shows that 23 items can be retained in the Romanian scale with a Cronbach-ά=90%. Cultural, linguistic adaptation has been optimized. Reporting remains on test re-test reliability to complete full validation.

Conclusion: CSAS (SEAAC) is a useful instrument for the Romanian undergraduate medical system. The validated questionnaire assesses the medical students' attitude towards the ability and willingness of learning communication skills.

ID 85 Exploratory Analysis of Student Attitudes Towards Learning Communication Skills: Communication Skills Ability Scale (CSAS)

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Aim: To assess the attitude and the willingness of international medical students for learning communication skills.

Objectives: 1) To evaluate the use of the English CSAS® (Communication Skills Attitude Scale) with a sample of international medical students from the Faculty of Medicine, UMF Carol Davila, year V; 2) To assess the compatibility of the CSAS (international students) with the validated Romanian version (Romanian students).

Methodology and methods: The validated English scale consists of 26 items (13 positive items and 13 negative items towards attitudes of learning communication skills). Data were collected electronically and anonymously during public health and management modules (UMF Carol Davila) during October 2018 - April 2019. We carried out the psychometric characteristics analysis of the CSAS® with: factor analysis (FA), principal component analysis (simple PCA and PCI with iteration) and assessed the construct validity (Cronbach-ά) for the scale used with the international student sample. The Romanian validated version is described elsewhere. Data analysis was carried out with Stata 15.

Results: a total of 647 students responded (149 international students; 497 Romanian students). The Romanian version showed at IPF (iterated principal factor) analysis that 23 items can be retained in the validated scale (Cronbach-ά= 0.900). The psychometric characteristics analysis of CSAS (149 international students) showed: Cronbach-ά coefficient = 0.903 for the 26 item-scale; and 0.907 for the 23-item scale. Cronbach-ά coefficients for subscales (international and Romanian students) are reported.

Conclusion: Both versions of CSAS are useful instruments for the Romanian undergraduate medical system. The validated questionnaires assess the medical students' attitude towards the ability and willingness of learning communication skills. The CSAS questionnaire can be used in its original form with international students in Romanian medical schools. Future work needs a test-retest reliability of the Romanian scale.

ID 89 DUOX2 – a New Player on the Scene of Thyroid Hormones

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Objectives: There is increasing interest in the development of new and easily applied markers that can predict thyroid malfunction. Clinicians need low-cost, faster and minimal invasive methods of diagnosis.

Our objective was to evaluate the correlation between serum levels of thyroid stimulating hormone (TSH) and dual oxidase 2 (DUOX2) in thyroid disfunction and the importance of oxidative stress (OS).

Methods: The study included 66 patients (men and women), divided on 2 lots: 33 patients with hypothyroidism and 33 patients with hyperthyroidism. The control group was represented by 33 healthy volunteers. The parameters analyzed were serum TSH using chemiluminescence method and serum DUOX2 using ELISA method.

Results: Our results showed that the patients with high levels of TSH have increased levels of DUOX2, while the patients with very low levels of TSH have lower levels of DUOX2 ($r2=0.1$ for hypothyroidism lot; $r2=0.06$ for hyperthyroidism lot).

Conclusions: Our results confirm the importance of DUOX2 in thyroid dysfunction, based on the significant correlation between levels of TSH and DUOX2, and thus the involvement of OS in thyroid malfunction.

ID 94 Mucocele, just an Appendectomy? Elementary Inflammatory Lessions Applied to Vermiform Appendix

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Objectives: Mucocele of the appendix is a term used to describe a dilated, mucin-filled appendix. It is most commonly the result of epithelial proliferation, but can be caused by inflammation or obstruction of the appendix. The case of a young woman with mucocele of the appendix is presented with a discussion about the importance of differential diagnosis and possible complications.

Methods: We report the case of a 29-year-old female patient that underwent a laparoscopic resections for suspected appendicitis, The sample consisting in multiple fragments between 1-4.5cm in size were received in the pathology lab fixed in formalin 4%. After macroscopic examination and grossing, the tissue samples were processed, embedded in paraffin blocks, and routinely stained with Hematoxylin-Eosin mounted on glass slides.

Results: The microscopic examination revealed appendiceal lumen dilatation, with thin walls, and acute gangrenous lesions of the base and mucin accumulation in the lumina. Carefully made several serial section for serosa study showed inflammatory changes with fibrin deposits suggesting microscopic peritonitis without mucin deposits.

Conclusions: Mucoceles are frequently discovered incidentally. Most are the result of mucinous neoplasms of the appendix ranging from benign to malignant that causes no inflammatory reactions. Much less frequently there are obstructive causes including hyperplasia, lymphoid follicles or an appendicolith. Finding the true cause is important because the treatment varies and the evolution of the patients depends on the diagnosis.

Treated surgically, a preoperative diagnosis aids in the planning of a careful mobilization to prevent peritoneal contamination. A right hemicolectomy is frequently performed if a malignant cause is suspected.

One of the most important complications of neoplastic mucocele is pseudomyxoma peritonei witch is characterized by mucinous deposits throughout the peritoneum causing an abdominal discomfort from pressure, increasing abdominal size and a slow progression to a manifest neoplastic disease.

ID 105 Smoking and Health Related Quality of Life in General Population

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Aim: To provide information on the association between tobacco consumption and HRQOL (health related quality of life) according to smoking profile in the general population. **Objectives:** (1) To assess the smoking behavior in the population; (2) To evaluate the attitude towards quitting; (3) To assess the effect of smoking on the physical and on mental health.

Material and methods: We conducted a cross-sectional survey between 1st of May to 31st of December 2018. Data were collected electronically and anonymously from a population of 100 people, using a Global Audit Tobacco Survey (GATS) to evaluate the tobacco consumption and SF36 to assess the HRQOL. Data analysis was carried out with SPSS 23.

Results: Almost a half of the respondents are currently smoke either cigarettes, cigars or a pipe. Manufactured cigarettes are the most widely used tobacco product among the smokers. Amongst those who smoke 41% smokers have tried to quit smoking at least once in the last 12 month. The majority of the smokers who attempt to quit smoking used oral tobacco, medication that require a prescription and nicotine replacement therapy (NRT). Regarding the physical health, there is significant difference among smokers, non-smokers and smokers in the past regarding Physical functioning ($p=0.001$), Bodily Pain ($p=0.027$) and Role limitations due to physical health ($p=0.002$), Smokers have the lowest physical health score (PHCS). Mental health: there are significant differences among smokers and non-smokers regarding Emotional well-being ($p=0.034$) and Social functioning ($p=0.022$). Smokers and past smokers have lower mental health score (MHCS) than non-smokers.

Conclusions: The study reveals a consistent negative relationship between smoking (current smokers and past smokers) and HRQOL. Utilization of QOL instruments and the data derived from them gives the opportunity to smokers, researchers and practitioners to be more sensitive to changes in the smoking status and the adverse effects of cigarette smoking.

ID 118 The Cutting Edge of the Porcelain Gallbladder

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Objectives: Porcelain gallbladder (PGb) is a rare entity and is considered the end stage of chronic cholecystitis. It has received significant attention in the medical literature due to its perceived role in increasing the risk of developing a gallbladder carcinoma. We present PGb case of a female patient with emphasis on the particularities in histological processing and microscopic aspects.

Methods: We received the cholecystectomy specimen of a 64-year-old patient, admitted for cholecystitis. The sample was fixed in formaline 4%. Gross examination revealed a 7.5cm long and 4 cm wide gallbladder, with pearl-white calcified hyaline thin wall. Due to fibrosis and calcification the sampling was impaired, therefore we decalcified the specimen in formic acid solution 5%, for 6 hours. After decalcification the grossing procedure continued and extensive cross-sections of the neck, body and fundus, were retrieved. The tissue was then histologically processed, by usual technique, embedded in paraffin blocks and sectioned into 2-micrometer-thick sections mounted on glass slides afterward. After sectioning, the slides were routinely stained with Hematoxylin-Eosin.

Results: The histological examination showed diffusely calcification scattered throughout the gallbladder wall, hyaline stroma, and microscopic calculi located intramucosal and within Rokitansky-Aschoff sinuses. There was no sign of dysplasia. The specimen was reported as chronic cholecystitis with porcelain gallbladder transformation.

Conclusion: There are two distinct types of gallbladder calcification: selective mucosal and diffuse intramural ones. The higher incidence of gallbladder carcinoma was related to the first type, but distinction between them cannot be made in emergency situation based only on radiological findings. When the pathology exam is performed, extensive sampling is a must to avoid skipping millimetric neoplastic lesions.

ID 125 The Influence of Gender on Physical Activity among Faculty of Medicine Students

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Physical activity, health and quality of life are closely correlated. The human body needs regular physical activity for optimal functioning and disease avoidance. It has been shown that sedentary lifestyle is a risk factor for the development of chronic diseases, including cardiovascular disease, one of the leading causes of mortality worldwide.

Objectives: The aim of this study was to evaluate the behavior of the Faculty of Medicine students to physical activity. The specific objectives are: a) Types of physical activities assessment practiced by students, according to gender, and b) Identifying the motivations that determine the behavior of studied population towards the physical activities.

Methods: An observational descriptive study, in transversal approach was performed. Target population was represented by a sample of 793 students from the 5th academic year, with median age of 23 years for both genders, 76.5% female and 23.5% male (p=0.0105, Kruskal-Wallis test). Data were collected in 2017-2018 academic year based on standardized questionnaire used in the study Eurobarometer "Sport and physical activity" 2014, with eighteen questions.

Results: More than 50.4% of women and more than 36.6% of men do sports or exercise for recreational activities at least once a week (p=0.000, Mann-Whitney U test). Moderate and intense physical effort are not among the first options, for all students. Walking at least 5 days per week, with an average duration of 31-60 minutes, is found in over 72% of both sexes. Sedentary is manifested in 75.6% of female students and 64% of male students by spending more than 4 hours and 30 minutes of standing (p=0.000, Mann-Whitney U test).

Conclusion: For 88.2% of respondents the main reasons for performing sports activities are: improving health, improving physical appearance and relaxation. Opposite, for 77.2% of students the lack of time motivates the absence of physical activity.

ID 136 Lymphocyte Immunophenotyping in Children with Recurrent Infections

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Objective: Standard lymphocyte immunophenotyping (SLI) (T-CD3+, T-CD4+, T-CD8+, B, NK cells) contributes to the diagnosis or exclusion of primary immunodeficiencies (PID). In PID-unrelated recurrent infections (RI), SLI appearance may be inconclusive, therefore we investigated some supplementary lymphocyte subgroups that can have an impact in the pathogenesis of RI: immature B cells (CD19+CD10+), naive B cells (CD19+sIg+), memory B cells (CD19+CD27+), plasma cells (CD19+CD38+), T-double negative (T-DN) cells (CD3+CD4-CD8-), NKT cells (CD3+CD16/56+CD4±CD8±CD1d+). The objective was to guide diagnosis by extended lymphocyte immunophenotyping (ELI), revealing those cell subgroups, usually untested, that showed significant changes.

Design and method: SLI and ELI was applied in 25 children aged 1-9 years, presenting PID-unrelated RI. The control group consisted of 18 healthy subjects. The determinations were made using 8-color methodology (FACSCanto II flow cytometer, FACSDiva 6.1 software).

Results: CD19+ lymphocytes (B cell population) were low in 67% of cases, especially by lowering naive B cell subpopulation (50% cases). Immature B cells and memory B cells decreased in either 11% cases. CD3+ lymphocytes (T cell population) were low in 11% cases, mainly by decreasing T-CD4+ subpopulation (helper T cells) in 28% of cases. T-DN lymphocytes were high in 22% of cases, 75% of these being associated with T-CD4+ cell decreases. NK cells were high in 39% cases, while NKT cells showed no modification. The overall improvement of ELI was obtained in 22% cases with T-cell modifications and 72% cases with B-cell deficiencies. ELI alone was useful in 28% patients with B-cell modifications.

Conclusions: ELI determines more accurately the origin of the lowering of different types of blood lymphocytes in RI, proving usefulness in lowering the B and T-CD4+ cells. Diagnosis features can consequently be varied and adapted to each case.

Acknowledgement: Work supported by Core Program, implemented with support NASR, projects PN19.29.01.01; PN19.29.02.03, Grant PN-III-P1-1.2-PCCDI-2017-0341, PN-III-P1-1.2-PCCDI-2017-0782 and 7PFE/16.10.2018.

ID 137 Changes in NK Phenotype in Psoriasiform Dermatitis Animal Model

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Introduction: Psoriasis (PS) is a chronic inflammatory immune-mediated disease with skin and joint manifestations, characterized by abnormal and rapid proliferation of keratinocytes and infiltration of psoriatic lesions with immune cells. Animal models are an important research tool, developed in order to give new insights in the PS's pathogenesis.

Methods: In order to reproduce the IMQ – based murine model, two groups of C57BL/6 mice were considered: 1) PS - daily topical dose of IMQ for 5 days; 2) control - no treatment. The disease's severity was assessed using in vivo measurements (erythema, desquamation and induration), splenomegaly and histopathological evaluation. Phenotypic characterization of NK cells was performed using following surface activation markers: NKp46, CD69, CD28, gp49R, B220, CD11c (flow-cytometry).

Results: IMQ – based mice model of psoriasiform dermatitis replicates human PS in terms of skin inflammation and disease's severity assessed by erythema, desquamation, induration parameters and PASI score. The spleen weight and the ratio SW/BW is 2 times greater in PS group than in control groups and histology confirmed psoriasiform dermatitis.

Analysis of NK cells activation markers (CD69, B220, CD11c, gp49R, CD28) revealed significant increased values ($p<0.005$) in PB and spleen cells in PS group as compared to control. NKp46 expression on NK cells showed decreased values for PS group in PB (91±13.1 vs 98±0.2) and spleen cells (64±2.7 vs 74±6.9, $p=0.008$). The percentages of B220+CD11c+NK1.1+ subset in PB and spleen cells ($p=0.0001$) were higher in PS group.

Conclusions: IMQ – based murine model of psoriasiform dermatitis was analysed in order to evaluate the involvement of NK cell in the pathogenesis of PS. We have obtained important differences in NK cells phenotype reflecting high activation in correlation with the degree of the psoriatic lesions.

Acknowledgement: Work supported by Core Program, implemented with support NASR, projects PN19.29.01.01; PN19.29.02.03, Grant PN-III-P1-1.2-PCCDI-2017-0341, PN-III-P1-1.2-PCCDI-2017-0782 and 7PFE/16.10.2018.

ID 139 The Assessment of the Professional Burnout Syndrome among Undergraduate Medical Students

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Aim: To assess the prevalence of burnout syndrome in medical students.

Objectives: 1) To assess the disengagement and exhaustion prevalence; 2) To identify risk factors of academic stress among students enrolled in Vth year of undergraduate medical training.

Methodology and methods: Cross-sectional study design; sample of 586 students, Vth year of UMF "Carol Davila" who attended the public health and management module during October 2018-April 2019. The 30-item questionnaire was distributed electronically and answers were collected anonymously. Variables include socio-demographic characteristics and the Romanian translation of the 16-item Oldenburg Burnout Inventory-Student (OLBI-S) version. Data processing was carried out with Excel, SPSS v23 and Stata 15.

Results: The questionnaire demonstrates acceptable reliability for both subscales. Internal consistencies (Cronbach's alpha) for the two subscales were: for disengagement 0.765 and for exhaustion 0.77. The disengagement dimension showed an average score of 2.72 (± 0.34sd). The exhaustion dimension (attitude of withdrawal and detachment from studies) showed an average score of 2.78 (±0.30sd). The prevalence of burnout was 27%; 44% stated exhaustion and 52.9% disengagement. Top three identified risk factors were: exams, where girls were more affected (weighted mean 5.98; χ^2 Fisher's exact = 29.55, p=0.000; but for payment of fee status there was no proof that the association with exams exists (χ^2 Fisher's exact = 5.69, p=0.45). Second risk factor was the huge volume of information taught by year V (5.71) and responsibility in practicing the medical profession in the future (5.70). Fourteen percent (13.7%) of respondents have approached a psychologist because of stress, 6.3% intend to do so; 32.4% have considered it.

Conclusions: Academic stress is present among undergraduate year V medical students, one in four students being affected by it. Around half of those affected seek psychological support.

ID 142 Using BHI Broth Improves the Detection of Bacteria from Paucibacterial Clinical Specimens

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Background: Brain heart infusion (BHI) is an enrichment broth used for fastidious to grow organisms and to improve the detection of bacteria from paucibacterial specimens. The objective of this study was to report the performance of enrich broth to recover bacteria from clinical specimens.

Materials/methods: In this study were used 1000 clinical samples collected in ESwabTM, including: wounds pus, post-surgery, abscess, acne, deep varicose ulcers. The samples were processed on the WASP (Walk Away Specimen Processor), using the SOP's protocol. One aliquot (10 μL) of each sample was inoculated in a tube of BHI broth and incubated at 370C overnight. After 24 hours incubation the samples in BHI broth were inoculated on one Columbia agar with 5% blood sheep.

Results: In the 1000 sample inoculated in duplicate, 102 samples (10.2 %) were positive with the BHI broth and negative from the ESwabTM sample inoculation. We obtained positivity only from the

BHI cultures for: *Staphylococcus aureus, Staphylococcus lugdunensis, Enterococcus faecalis, Corynebacterium glucuronolyticum, Streptococcus agalactiae, Klebsiella pneumoniae, Escherichia coli, Acinetobacter baumannii, Burkholderia cepacia, Pseudomonas aeruginosa* and *Candida albicans*. The percentage of positivity was higher for Gram positive bacteria 66% (67 strains), respectively 33% for Gram negative bacteria (33 strains), and 0.23% for Yeasts (2 strains). Moreover, for 15 samples (14.70%), additional bacteria were obtained only after BHI enrichment.

Conclusions: The obtained data demonstrated that the BHI broth recovers the growth of pathogens that were not detected from the inoculation of the primary samples, resulting in improved sensitivity of cultures.

ID 148 Involvement Nitrite in the Control of the Physiological Responses to Brain Hypoxia

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Introduction: Nitric oxide (NO) is an important physiological messenger and effector in neuronal tissues. Furthermore, whereas the ·NO species has been shown to cause some cell damage *in vitro,* increasing evidence suggests that the endogenous formation of peroxynitrite anion (ONOO−), from the reaction of ·NO with O2·− or nitrite (NO2 –) may be a possible mechanism through which neurotoxicity is induced. One means to investigate nitric oxide formation is to measure nitrite (NO2 –), which is one of two primary, stable and nonvolatile breakdown products of NO.

Objectives: To demonstrate the measurement of nitrite in the brain during hypoxic insult is a good evaluation for a physiological response aimed at compensating the deficiency in oxygen for cerebellar cells.

Methods: The study used cerebellar cultured from P7 rats then incubated for 3h in gassed (95% CO2–5% O2). Nitrite in tissue culture media was detected by the Griess reaction. The Griess Reagent System is based on the chemical reaction which uses sulfanilamide and N-1-napthylethylenediamine dihydrochloride (NED) under acidic (phosphoric acid) conditions. The results are expressed in μM/ml.

Results: *In vitro* conditions NO2− levels decreased significantly after 3 hours of hypoxia (21,13 vs 31,98 μM/ml; p=0,001 Hypoxia group compared with Control group).

Conclusions: We consider that the physiological effects of endogenous levels of nitrite under conditions of hypoxia seems to be cytoprotective perhaps because the oxidation of endogenous NO radicals to nitrite is a very slow process in vitro conditions.

ID 151 Effects of Environmental Pollution by Heavy Metals on Cognitive Performance of School-Aged Children

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Introduction: Environmental pollution with heavy metals can affect both physical and neuro-psychic development of children. In the chronic exposure the damage is mainly neurological with attention deficit, behavior disorders or memory disturbances.

Objective: To assess the effects of environmental contamination with heavy metals on children cognitive performance.

Methods: A case-control study was carried out in a group of 67 school-aged children (8-11 years old) living in an industrial area contaminated by heavy metals and 52 school-aged children of the same age from a non-polluted area during 2014-2015. Toulouse-Pieron test was performed in order to assess attention performance. This test investigates both quantitative and qualitative aspects of attention (rapidity of answers, respectively the accuracy). The statistical analysis was made with Student's *t*-test, level of significance $p<0.05$.

Results: In the group of 8 years old the results of Toulouse-Pieron test were statistical significant between case and control study group ($p = 0.037$), the average scores being lower in children living in the polluted area. In the case of 9 years old children, the results of Toulouse-Pieron test were statistical significant only for the qualitative score that investigate the concentrated attention ($p=0.003$). No statistical differences were noted between the study group and the control group in the case of 10 and 11 years old children.

Conclusions: Our study showed that chronic exposure to heavy metals may affect children health and highlights the need of integrated risk assessment and public health programs in polluted areas.

ID 153 Telemedicine Projects in Europe – a Systematic Review

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Objectives: To identify telemedicine projects implemented in last 15 years in Europe, their area of intervention and main outcomes and barriers.

Methods: A three steps searching strategy was applied in Cochrane, PubMed, Scopus and Google Scholar databases. After critical appraisal performed by pairs of reviewers, a number of 43 papers reporting either review or studies were retained for full text retrieval and data extraction.

Results: Were identified various telemedicine projects either for care staff: knowledge about hepatitis C in primary care; evidence-based (EB) guidelines for eHealth services in nursing and social care; EB Internet interventions in mental healthcare practice; support for informal carers of older adults with cognitive impairment) or for patients: mHealth tool for self-management of Cystic Fibrosis; care support in Chronic Obstructive Pulmonary Disease; e-services assisting elderly in food procurement, preparation; support in diabetic or cardiac patients; teleophthalmology (diabetic retinopathy, glaucoma, age-related macular disease, cataract and retinopathy of prematurity); application of behavior change techniques BCTs in eHealth interventions to increase physical activity (PA) in cardiovascular disorders (CVD); management of acute stroke; monitoring of cardiac implantable electronic devices; monitoring of blood pressure, chronic heart failure; palliative care. The projects were classified by main area (assisting patients for self-care with information, devices, monitoring) and their outcomes by empowerment, quality and safety degree.

Conclusions: Telemedicine improves access to care at point-of-need, develops citizen-centred care, and ensures cost containment of health services essentially for remote communities and disadvantageous subgroups. Telemonitoring of patients with blood pressure (BP), implantable cardioverter-defibrillators or stroke improves significantly the health outcomes. Outpatients visits number decrease, the remote patient monitoring of chronic conditions becomes possible, the staff education is facilitated. Disease management programs supported by telemedicine technology are a true opportunity of health care systems to optimize the healthcare process.

ID 156 CD36 Mapping in Ageing Brain and Blood-Brain Barrier Alteration

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Age-related cognitive decline is correlated with ultrastructural changes in the blood-brain barrier (BBB). Ultrastructural studies revealed the accumulation of lipid inclusions in the basement membrane in ageing mouse models, which might contribute to the BBB dysfunction and, furthermore, to neuronal degeneration. One of the major fatty acid transport proteins expressed in both human and mouse microvessels is the scavenger receptor CD36. Our hypothesis was that CD36 could be involved in the process of lipid accumulation in the BBB basement membrane of the aging brain. The aim was to determine CD36 distribution in ageing mouse brain and to correlate CD36 expression with ultrastructural changes of the BBB.

The brain tissue from C57BL/J mouse models from three age groups (6, 18 and 24-month-old mice) was screened by confocal and super-resolution microscopy for CD36 distribution after immunolabelling with anti-CD36 antibody. CD36 positive regions were further analyzed by transmission electron microscopy for BBB ultrastructural changes.

Our study demonstrated consistent changes in the BBB ultrastructure by lipid droplets accumulation in the basement membranes in CD36 positive regions of the ageing mouse brain suggesting the potential involvement of CD36 in the age-related BBB dysfunction.

ID 159 Metabolic and Anthropometric Parameters Association in Order to Evaluate Disease Risk in Aging

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Introduction: Changes in metabolic and anthropometric parameters are classic risk factors for several pathologies. The aim of the study is to evaluate the variations in metabolic and anthropometric parameters, their correlations with age, metabolic-anthropometric relationships and to identify the metabolic risk factors that may influence the state of health.

Material and methods: Were investigated 250 patients, men and women, aged between 50 and 92 years. Were determined body weight, body mass index (BMI), waist circumference (WC), hip circumference (HC) waist-hip ratio (WHR) and waist-height ratio (WHtR), serum levels for glucose, urea, creatinine, uric acid, total cholesterol, HDL-cholesterol, non-HDL-cholesterol, LDL-cholesterol, triglycerides, and total cholesterol/HDLc, LDLc/HDLc, non-HDLc/HDLc, triglycerides/HDLc ratios, TyG index and Pearson correlation coefficient between metabolic and anthropometric parameters.

Results: All anthropometric and metabolic parameters have undergone changes with age. WC($r=0.1248$, $p<0.05$), WHR ($r=0.1964$, $p<0.01$) and WHtR ($r=0,2472$; $p<0,001$) correlated significantly positive, while height ($r=-0.2032$, $p=<0.01$), significantly negatively correlated with patients age. Significantly positive correlations of creatinine ($r=0.24305$; $p<0.01$), urea ($r=0.3825$; $p<0.01$) and uric acid ($r=0.1778$; $p<0,05$), and significantly negative corelations total cholesterol($r=-0.1924$; $p<0.02$) and LDL cholesterol ($r=-0.1937$; $p<0.01$) with subjects age were evidenced. Regarding metabolic-anthropometric relationships, calculations showed that glucose significantly positively correlated with weight ($r=0.2403$, $p<0.01$), BMI($r=0.1960$, $p<0.05$), WC ($r=0.2832$, $p<0.001$), HC($r=0.2894$, $p<0.001$) and WHtR ($r=0.2715$, $p<0.001$). Uric acid correlated positively with weight ($r=0.1939$, $p<0.02$), BMI ($r=0.2060$, $p<0.01$), WC ($r=0.2946$, $p<0.001$), HC ($r=0.2415$; $p<0.01$), WHR ($r=0.1915$, $p<0.02$) and WHtR ($r=0.2680$; $p<0.001$). Triglycerides positively correlated with weight ($r=0.2403$, $p<0.01$), BMI ($r=0.2027$, $p<0.02$), WC ($r=0.2774$, $p<0.001$), HC ($r=0.2548$; $p<0.01$), WHtR ($r=0,2224$; $p<0.01$). In contrast, HDLc negatively correlated with weight ($r=-0.2862$; $p<0.001$), BMI ($r=-0.2723$; $p<0.02$), WC ($r=-0.3703$; $p<0.001$), HC ($r=-0.2984$; $p<0.001$), WHR ($r=-0.2803$; $p<0.001$) and WHtR ($r=-0.3324$; $p<0.001$). Total cholesterol/HDLc positively correlated with weight ($r=0.1803$, $p<0.05$), BMI ($r=0.2017$, $p<0.02$), WC ($r=0.2152$, $p<0$, 01), HC ($r=0.1959$; $p<0.02$) and WHtR ($r=0.1852$; $p<0.05$). LDLc/HDLc positively correlated with weight ($r=0.1696$, $p<0.05$), BMI ($r=0.1822$, $p<0.05$) and WC ($r=0.1647$, $p<0.05$). TG/HDLc positively correlated with weight ($r=0.2209$, $p<0.01$), BMI ($r=0.1805$, $p<0.05$), WC ($r=0.3003$, $p<0.001$), HC ($r=0.2396$; $p<0.01$), WHR ($r=0.2155$; $p<0.01$) and WHtR ($r=0.2449$; $p<0.01$). TyG index positively correlated with weight ($r=0.2967$, $p<0.001$), BMI ($r=0.2605$, $p<0.001$), WC ($r=0.3297$, $p<0.001$), HC ($r=0,3212$; $p<0.001$) and WHtR ($r=0.2679$, $p<0.001$).

Conclusions: The study showed a strong relationship of serum metabolic indicators: glucose, uric acid, HDLcolesterol, triglycerides, cholesterol/HDLc. LDLc/HDLc, TG/HDLc ratios and TyG index with anthropometric parameters. Correlated analysis of metabolic and anthropometric parameters is useful in assessing the disease risk.

ID 160 Insights into MTS Based Metabolic Viability Assay Protocol

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Objective: A wide variety of viability assays are available to assess cell survival when exposed to various physico-chemical treatments. Methyl tetrazolium salt (MTS) based assay is one the most used metabolic tests developed for in vitro studies (among others e.g., LDH or ATP levels tests). Our study started from laboratory observation that MTS assay results depend on the conditions of optical absorbance data acquisition. In our study we focused on the effect of phenol red presence in the MTS medium.

Method: CaCo-2 human colorectal adenocarcinoma cells were cultured at 37°C, 5% CO2 in 24-wells plates at the same seeding concentration for 24, 48, 72h. The MTS colorimetric viability assay was then performed in culture media with (P+) and without (P-) phenol red. After adding MTS mix (MTS:medium 1:6) to the adherent CaCo-2 monolayer, the plates were incubated for 1, 2, 3 and 4h. The formazan production (a colored compound) was quantified at 490nm by absorbance measurements. Formazan is result of MTS reduction in mitochondria via NADPH/NADH. Post-cellular death the mitochondrial reduction to formazan is rapidly lost. Thus, the quantity of formazan obtained is directly proportional with the number of viable cells.

Results and discussion: P(+) medium tests had absorbance values lower than P(-) ones (in spite of the contribution of phenol red to the absorption) regardless of MTS mix incubation time. The higher the MTS mix incubation time, the higher the formazan signal for both P(+) and P(-). For low cell number studies, MTS tests should require minimum 2h incubation since the signal is close to the background one for 1h. Our results revealed that precautions should be taken regarding the interference of phenol red media content with formazan absorbance. MTS results can be compared only when working with the same MTS mix medium.

ID 161 A Cross Sectional Survey of Behavioral Risk Factors for Noncommunicable Disease in a Roma Romanian Rural Community

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Objectives: This study aims to identify the prevalence and distribution of risk factors of non-communicable diseases (NCD) among adult Roma population in a rural community.

Methods: Using a tool developed taking into account the WHO stepwise approach, a cross-sectional study was carried out among a sample 116 adults aged 18-85 years (52 male and 64 female), from a rural community with 800 Roma members. The tool used to collect date included questions to record behavioral risk factors (smoking behavior, alcohol drinking, diet and physical activity and also data on anthropometry and recorded value of blood pressure). Descriptive statistics methods were used to analyze the data.

Results: The smoking prevalence was 35,3% (95%CI, 27.0 to 44.3,) higher for men (49,9%, 95%CI, 36,6-63,4%) than for women (23,4%, 95%CI, 14.2-34,9), higher than the smoking prevalence recorded for Romanian population in 2017 Eurobarometer study. Prevalence of obesity (body mass index ≥30 kg/m[2]) was observed to be high among Roma respondents 34,48% (95% CI, 26,26 to 43,47) compared with self-reported obesity rates among adults in Romania (9%, Eurostat, EHIS 2014). There was observed a higher proportion of people declaring they eat fruits less than once on a week (25%, 95% CI, 17,7 to 37,4) and adding salt before tasting the dishes (58,6%). Most of interviewed people have a sedentary lifestyle with less than 30 minutes of physical activity per day.

Conclusions: The high prevalence of risk factors for NCD in this rural Roma community indicates the likelihood of a high future burden of illness. Effective health prevention interventions should be planned based on the known prevalence of modifiable risk factors for noncommunicable diseases in communities.

ID 164 Thyrosine Kinase Inhibitors (TKI) Therapy Resistance in Chronic Myeloid Leukemia (CML) – Oxidative Stress (OS) Influence

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Introduction: TKI is the current standard treatment for CML (chronic myeloproliferative neoplasia characterized by activation of bcr-abl oncoprotein); some cases of CML have therapeutic resistance to TKI, with evidence that OS is involved in this process.

The aim of the study is: to determine the level of OS in patients with CML in TKI I / II treatment with resistance (primary resistance - PR or secondary resistance - SR), to correlate the obtained values with the type of therapy / resistance, compared to patients with optimal response to TKI therapy.

Materials and Methods: It was studied a group of 75 patients with CML (35 women, 40 men) – diagnose according to ELN criteria, informed consent obtained - in therapy with TKI I / II, of whom 20 were found to have therapeutic resistance, while 55 responded favorably. The therapeutic resistance sublot includes 7 women and 13 men, mean age 61.5 years, while the favorable response sublot includes 28 women and 27 men, mean age 60.5 years; there were determined reactive species of O2 (ROS) using a CyFlowSpace flow cytometer and total antioxidant capacity (TAC) using a FluoStar Omega microplate reader.

Results and Discussion: By statistical data processing, we observed: male predominance among patients with TKI resistance; the predominance of PR; SRO and TAC had lower values in men in both sublots; the lower average TAC value, but higher the ROS at PR and a higher TAC value and less the ROS at SR; the minimum TAC and maximum ROS values were recorded in patients with resistance to both TKI generations; the maximum TAC value was recorded in the favorable response sublot, and the maximum ROS value in TKI II resistance subcategory.

Conclusions: it was observed the predominance of resistance to TKI I therapy. The minimum TAC and maximum ROS values were recorded in the subcategory with resistance to both TKI generations. In PR the TAC value is lower and the ROS value is higher than in SR. The ROS value is significantly higher, and TAC is significantly lower in the TKI resistance sublot compared to the sublot with optimal response to treatment.

ID 177 Illustrated Prostate Scoring System

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Objectives: The paper is intended to be an illustration of the scoring system for prostate MRI , known as Prostate Imaging -Reporting and Data System version 2.1 (PI-RADS), in order to promote global standardization in acquisition, interpretation and reporting of prostate multiparametric-MRI (MPMRI) examinations.

Methods: We perform in our department a dedicated MP-MRI prostate protocol, using morphological (T2 WI) and functional sequences (DWI, DCE and sometimes MR-spectroscopy), applied for all patients on a Toshiba or Siemens 1,5 Tesla MR machine. In PI-RADS version 2.1, every imaging technique is scored on a five-point scale, based on the probability that a combination of MP-MRI findings on T2, DWI and DCE correlates with the presence of a clinically significant cancer on each zone of the gland. DWI is considered the main sequence for the peripheral zone (PZ), while T2 is considered the main sequence for the transition zone (TZ). DCE contribution in scoring prostatic lesions is modest and secondary to T2WI and DWI. An important situation is when DWI is scored PI-RADS 3 in the PZ and a pozitive DCE increases the possibility that the finding corresponds to a clinically significant cancer and so, the Assessment Category becomes PI-RADS 4.

Results: A lot of signal abnormalities within the prostate are benign, scored PI-RADS 1 or 2, which do not need targeted-biopsy. Findings scored PI-RADS 4 and 5 should be considered for biopsy, because clinically significant cancer is highly likely to be present. On the other hand, biopsy for findings scored PI-RADS 3 should or should not be considered, depending on other factors (PSA level/density/history, previous biopsy, other relevant clinical and family history).

Conclusion: Mp-MRI is an invaluable tool in detection, localization and characterization of the prostate lesions. PI-RADS version 2.1 scoring system, manages to standardize the radiological reports, to facilitate precise localization of the lesion and to help in patient selection for targeted-biopsy.

ID 184 Evaluarea Microcalorimetrica a Curbelor de Crestere Bacteriana

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Obiective: Interventiile in sfera ortopediei si a traumatologiei presupun utilizare frecventa a materialelor straine; un numar crescut de pacienti traiesc cu aceste implante, avand un risc crescut pentru a dezvolta o infectie la locul interventiei. Metoda microcalorimetrica presupune evaluarea cresterii bacteriene in functie de curba termic pe care aceasta o descrtie in timpul cresterii in mediu lichid.

Metoda: Identificarea rapida si a unei infectii este cheia unui tratament corect si a unei evolutii favorabile a pacientului. In lucrarea prezentata dorim sa punem in lumina posibilitatea identificarii rapide a infectiilor utilizand microcalorimetria. Aceasta metoda, folosind programe adaptate, poate sa descrie in timp real curbele de crestere bacteriana conform semnalului electric trasmis de acestea. Pentru studiul de fata s-au folosit 3 microorganisme diferite (Escherichia Coli, Staphylococcus Aureus si Candida Albicans) pentru a demonstra capacitatea acestei metode de a urmari cresterea acestora.

Rezultate: Pentru toate cele 3 microorganisme am realizat cate 2 termograme in aceleasi conditii de mediu si de temperatura, neexistand modificari notabila intre cele doua experimente distincte. Am suprapus aceste termograme si asa cum se poate observa din imaginile associate sunt foarte asemanatoare atat in cazul aceleiasi tulpini cat si intre cele 3 tulpini. Timpul necesar pentru cresterea bacteriana cat si temperaturile generate de acestea au fost asemanatoare in toate experimentele, confirmandu-ne teoria initiala

Concluzii: Microcalorimetria este o metoda putin folosita in prezent in identificarea agentilor patogent implicati in infectii, dar are un potential real de a devein o metoda patentata care in viitor ar putea sa schimbe modul in care privim diagnosticul microbiologic. Bineinteles ca experimente suplimentare trebuie sa fie realizate, pentru a se ajunge la o tehnica viabila de diagnostic. In acelasi timp metodele de analizare a curbelor de crestere si a pregatirii probelor pentru experiemnte trebuie sa fie cizelate pentru a se ajunge la un rezultat optim si reproductibil.

ID 199 Slow Decreasing Penicillin Resistance in *Staphylococcus* spp. Strains Isolated from Difficult-to-Treat Infections

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Objectives: Penicillin resistance in Staphylococcus spp. strains was noticed in a short period after the beginning of its use, but some recent studies have underlined a possible increase in the percent of Staphylococcus spp. penicillin susceptible strains. The objective of this study was to evaluate the antimicrobial resistance to penicillin of Staphylococcus spp. strains.

Methods: We included in our study 111 strains of Staphylococcus spp. isolated from difficult to treat infections between August and December 2017. We confirmed the specie through MALDI-TOF (Matrix-Assisted Laser Desorption/Ionization time-of-flight) and evaluated their antimicrobial resistance profile according to the CASFM (Comité de l'antibiogramme de la Société Française de Microbiologie) guidelines.

Results: The majority of the strains were Staphylococcus epidermidis, followed by Staphylococcus aureus while others, like Staphylococcus warneri or Staphylococcus lugdunensis were less frequent identified. Of the tested strains 90% were resistant to penicillin. In these strains we also observed that approximately one third were resistant to cefoxitin, meaning that they were considered as methicillin resistant staphylococci.

Conclusions: In the era of increased antimicrobial resistance and reduced rate of new drugs being developed, the possibility of using old drugs to treat infections could be of great help. Compared to other studies from the literature, the evaluated strains included in our study were penicillin resistant in a quite higher rate. Antimicrobial resistance patterns in the studied strains may reveal important differences related to the evolution of antimicrobial resistance from a selected area.

ID 201 White Stars under the Microscope – the Many Faces of Pelvic Calcifications

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Objectives: Radiographic calcifications in the abdominopelvic cavity are defined as abnormal calcium deposits in soft tissues, a ringing alarm for potential neoplasia. A wide variety of benign and neoplastic diseases are in the differential diagnosis, clinic & radiological point of view. We intend to highlight the importance of the histological approach of abdominopelvic calcifications in two different cases: an abdominopelvic neoplasia and an infectious process, focusing on the histological characteristics.

Material and Methods: We report two cases with bizarre pelvic calcifications identified by radiologic-exam, for a tumour of the splenic flexure in a 70-year-old male and in a 51-year-old female with an acute abdomen syndrome. For the first case hemicolectomy was performed, followed by hepatic metastasectomy. The second patient suffered an appendicectomy. Samples were addressed to the pathology department, fixed in formalin 4%. After macroscopic examination and grossing, the tissue samples were histologically processed, embedded in paraffin blocks, sectioned into 2-micrometer-thick sections, mounted on glass slides and routinely stained with Hematoxylin-Eosin stain.

Results: Microscopic examination of the first case, revealed a moderately differentiated adenocarcinoma, invading the pericolorectal tissues. Stromal desmoplasia, intratumoral and distant amorphous calcifications were confirmed and classified as dystrophic. The hepatic metastasectomy specimen exhibited similar morphology and diagnosed as metastatic adenocarcinoma of the colon. Regarding the appendicectomy specimen, the histopathological exam revealed acute gangrenous appendicitis lesions. Dystrophic calcifications were also present in the wall of the inflamed organ and in the peritoneal samples.

Conclusions: Whether we talk about a neoplastic process or about an infectious one, the presence of calcifications is a pathological sign, with clinical significance. Surgical exploration of the operatory field is mandatory and requires a good understanding of the gross appearance of diseases, a skill initial developed in medical school pathology workshops.

Radiology can sometimes be inconclusive, consequently, the histological approach remains the only reliable method.

ID 213 Strange Blood Tides of Atypical Chronic Myeloid Leukemia – Is It More than Atypia?

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Objective: Atypical chronic myeloid leukemia (aCML) is a rare myeloproliferative & myelodysplastic neoplasm, lacking the Philadelphia chromosome and 100 times less likely to appear than CML. It is underdiagnosed and without known proper treatment. We report the case of a 76-year-old patient, diagnosed with aCML in our laboratories - a fortuity discover after medullary biopsy for myelofibrosis.

Methods: Lab tests revealed increased white blood cells (31460/mcL), 86% neutrophils, a low percentage of basophiles (0,70%), circulating immature blood cells and anemia. LAP index was low. A complete blood count and an osteomedullary biopsy were performed. The biopsy was sent to "Victor Babes" National Institute of Pathology for further investigation. An 8 mm cylindrical sample with a brown-grey color and friable consistency was used to obtain 13 slides stained with HE, MGG and additional immunohistochemistry tests.

Results: Microscopic examination of the medullar tissue revealed unevenly distributed cellularity of 70%. The erythroid lineage was poorly represented. The myeloid lineage presented mostly hyperplasia of band neutrophilic granulocytes, but also of eosinphils and monocytes. Dysmyelopoietic changes were found: asynchronism between nucleus and cytoplasm, tachycromatic and atypically segmented cells. Megakaryocytes: CD31+ in numerous small, hypolobulated, tachycromatic cels with decreased cytoplasm. Immunohistochemistry expression for CD3, CD20, CD117 was positive on small, isolated lymphocytes and precursors, while CD34 was positive on an increased number of cells (<15%). Myeloperoxidase revealed a 9/1 ratio between the myeloid and erythroid lineages. Fibrosis was incipient-grd1. In the appropriate context (age of the patient; hyperplasia and dysplasia of granulocytes and megakaryocytes), a suspicion for atypical chronic myeloid leukemia was raised. Further investigations confirmed the diagnosis according to 2017 WHO criteria.

Conclusion: Despite the rarity and the unusual presentation, in the clinical and laboratory context, the histopathology findings can identify rare cases like this one in a multidisciplinary team, revealing targets for further investigations.

ID 223 Gallbladder Carcinoma: the Underlying Problem Hidden under a Common Diagnosis

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Objectives: Gallbladder carcinoma has a relatively low incidence but is correlated with a poor outcome. Although it's the fifth most common digestive neoplasm, it's rarely suspected before surgery due to clinical signs overlapping with symptoms in cholecystitis. Therefore, awareness of the possibility of unsuspected gallbladder carcinoma should lead to a thorough histologic evaluation of all gallbladder specimens. We hereby report the case of a 77-year-old male suffering a laparoscopic cholecystectomy for calculous cholecystitis, that on the histopathologic exam was reported as a stage I adenocarcinoma.

Material and Methods: The cholecystectomy specimen, measuring 15 cm in length and 3cm in width, was received fixed in formaldehyde. Gross examination revealed a 1.5cm cystic mass in the infundibulum, tan mucosa with focal erosions and thickened pliable wall. The usual grossing procedure involves sampling representative cross-sections of the neck, body and fundus, embedded in 1 cassette. In this case, we submitted additional sections embedded in 3 cassettes.

The tissue was then histologically processed, embedded in paraffin blocks and sectioned into 2-micrometre-thick sections mounted on glass slides afterward. After sectioning, the slides were routinely stained with Hematoxylin-Eosin.

Results: The microscopic examination showed chronic inflammation changes. The cystic region corresponded to a simple epithelial cyst. The nearby neck mucosa displayed high-grade lesions of neoplastic intraepithelial proliferation (BilIN:2/3) and foci of microinvasive adenocarcinoma (well-formed glands with atypical cylindrical/cuboidal cells). The pathologic report was: well-differentiated adenocarcinoma staged as pT1b.

Conclusion: Gallbladder carcinomas are more frequent in older patients (6th and 7thdecade) and the risk factors include the presence of gallstones, abnormal choledocho-pancreatic junction, porcelain gallbladder and genetic susceptibility. This case emphasizes the value of detecting the risk factors and performing proper sampling of the specimen that lead to an accurate diagnosis and therapy, thus securing the best outcome.

ID 226 Impedance Cardiography in Obese Pregnant Women

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Introduction: Impedance cardiography is a noninvasive method used worldwide for different types of measurements in obstetrics. The purpose of our study was to evaluate hemodynamic changes in obese pregnant women using impedance technique.

Material and Methods: In this study, we evaluated a group of third trimester pregnant women using impedance cardiography technique. We divided the women into two study groups: normal maternal; weight and women with increases body mass index (over 30 kg/m^2).

Results: Our study included 40 pregnant women: 20 with normal BMI and 30 increased BMI. We analyzed the parameters of the patients with uncomplicated pregnancy and we found that the results followed the basic hemodynamic profile of pregnancies monitored with invasive techniques. The results for overweight women were: higher cardiac output in the third trimester (DC = 6.2 ml/min) based on cardiac frequency (FC = 96.25 beats per minute) and an increased myocardial contractility compared to uncomplicated pregnancy (DC = 6.12 ml/min, FC = 72.45beats / min).

Conclusions: Nowadays, the applicability of the cardiac impedance technique in obstetrics is at onset but this could become an effective method to evaluate the hemodynamic profile in complicated pregnancies.

ID 239 Social Frailty Studied in an Elderly Sample from NIGG Ana Aslan

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Assessing public health needs involves knowing the pathology and its interaction with the functionality. The functional ability refers to intrinsic and extrinsic capacities of human being and their interactions. Intrinsic factors - diseases, therapies or frailty, are familiar topics in health studies, but extrinsic factors are less studied as health determinants. Especially in elderly's life, the accumulation of multiple social problems can generate social frailty.

Objectives: Testing the relationship between social frailty and other frailty indicators.

Material and methods: A sample of 462 patients, 94 men and 368 women, with average age=69.3 years, was studied through various global health and functionality assessments. The social frailty index was obtained using the three items of social aspects from Tilburg Frailty Indicator: living alone, lack of contacts and of support. Other frailty tests used: Up and Go Test, Handgrip Strength, Geriatric-8 Score, Groningen Frailty Index (GFI) and Life-Space Assessment (LSA).

Results: Frailty weights varied as follows: 48% (Handgrip Strength), 28% (Up and Go Test), 29.5% (G8 score) 29.2% (GFI) and 21% (LSA).The social frailty appeared in 18.8% cases, gender-differentiated from 14.9% (men) to 19.8% (women). Ordered social variables which significantly correlate with social frailty were: the interest in everyday events, satisfaction with social relations, the age and the income size. Physical frailty indicators significantly correlated to social frailty. A higher number of diseases led to the shrinkage of social networks, resulting in social frailty($r=.120$/ $p=.031$).

Conclusions: Frailty may be a target in prevention, it representing the transition between robust health state and disability. Our lot consisting of inpatients had a high frailty rate. Social frailty occurred in almost one fifth of the lot. The study highlighted the link between social frailty and biomedical frailty. It revealed that the extrinsic capacities should be systematically evaluated when are considered the elderly, because these aspects can signal the social frailty.

ID 240 Geriatric Nutritional Risk Index Relationship with Anthropometric Indicators

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The aging process is associated with the increase in the prevalence of malnutrition, whether or not accompanied by different pathophysiological states. Nutritional measurements may include nutritional intake, body composition changes, signs or symptoms of nutritional deficiency or excess.

The purpose of the study is to use the Geriatric Nutritional Risk Index (GNRI) to identify the risk of malnutrition and to evaluate its association with anthropometric parameters, also used in defining nutritional status. We investigated 250 subjects grouped by age: A:50-59 years; B:60-69 years; C:70-79 years and D:80-92 years. Anthropometric parameters: body weight, height, BMI, waist and hip circumferences, waist-to-hip ratio, waist-to-height ratio, ideal body weight, current/ideal body weight ratio, serum albumin and GNRI were determined and Pearson correlation coefficient(r) of GNRI with patient age and anthropometric parameters was evaluated.

Results: the height, ideal body weight, serum albumin and GNRI decreased significantly with the subjects age. Current body weight, BMI, waist and hip circumferences, waist-to-hip and waist-to-height ratios increased significantly in subjects between 60-69 years and 70-79 years, and significantly decreased in subjects over 80 years of age. Severe/moderate nutritional risk presents 1.15% of patients aged 60-69 years and 2.63% of subjects 80-90 years. Low nutritional risk has 5.26% of subjects 50-59 years, 1.15% subjects 60-69 years, 9.33% subjects 70-79 years and 10.53% subjects 80-90 years. There is no nutritional risk in 94.74% subjects 50-59 years, 97.7% subjects 60-69 years, 90.66% subjects 70-79 years and 86.84% subjects 80-90 years. GNRI and serum albumin showed a significantly negative correlation with the subjects age. GNRI correlated significantly positively with serum albumin, current body weight, BMI, current/ideal body weight ratio, waist and hip circumferences, waist-to-hip and waist-to-height ratios.

Conclusion: GNRI can be a useful tool for identifying the risk of malnutrition in elderly subjects, based on minimal measurements: weight, height and serum albumin.

ID 253 Pheontypic and Genotypic Detection Methods for Colistin Resistance in Gram Negative Bacteria

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Objectives: Antimicrobial resistance (AMR) is one the greatest threats to the progress achieved in medicine in the last century. Its rise in the last decades raises concern about the treatment of regular infections in what the World Health Organization called a "post-antibiotic" era. Colistin is a last resort antibiotic, used only in selected cases. Its resistance spread especially because of the its extensive past use in the veterinary sector and lack of international regulation policies.

Methods: We searched the literature for evidence of the performance of different phenotypic detection methods. We summarized the different protocols and operating characteristics of the different tests published to date.

Results: As Colistin resistance in rising, a number of phenotypic tests besides the antibiotic susceptibility testing are being developed for its rapid detection.

The newly described Colistin Broth Disk Elusion Test is a potential alternative to broth microdillution as it requires few materials (Mueller-Hinton broth and colistin disks). Following another 16 to 20 hours of incubation, the results are read by using the recommended MIC breakpoints.

Rapid polymyxin NP is a test similar to CarbaNP that can detect the bacterial growth in the presence of a specific concentration of colistin. The test can be interpreted in 2 hours with a reported sensitivity and specificity of upwards of 95%.

MALDI-TOF can be used for the detection of lipid A modifications caused by polymyxin resistance in less than 15 minutes.

Recently, a lateral flow immunoassay has been developed and tested for the rapid detection of MCR-1-producing Enterobacteriaceae.

Conclusions: Rapid detection methods for antimicrobial resistance are crucial in limiting the spread of these strains and in the initiation of the optimal treatment.

ID 1 Severe Deforming Polyarticular Tophaceous Gout, Complicated with Multiple Erosive and Necrotic Lesions, Chronic Kidney Disease, and Ischemic Stroke

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Gout prevalence is 6% in males, and 2% in females. The disease is initially manifested as an inflammation in a joint and causes unbearable pain, and then it can extend to the other joints. Some cases may be complicated with urolithiasis and chronic kidney disease, or heart failure.

Gout - at the border between specialties - needs interdisciplinary approach.

A 57-year-old male with chronic deforming tophaceous gout, tophi on the right pinna and left knee, "white bumps" on the left elbow, multiple ulcerated tophi on his feet and hands, necrotic lesions (distal right thumb, and distal phalanx the 5th little finger of the right hand), recently infected with antibiotic-resistant staph bacteria (MRSA), treated with vancomicine.

Medical history: heavy smoker, gout (since 2004), surgical amputation of the 4th right finger (2015), arterial hypertension (2012), renal lithiasis (2014), moderate kidney disease, myocardial infarction and coronary stent (2012), left sylvian ischemic stroke, right hemiplegia and aphasia (December 2018).

Physical local examination: multiarticular deformities and deviation of the fingers and toes, soft-tissue involvement (multiple tophi, erosive and necrotic lesions).

Laboratory testing: erythrocyte sedimentation rate 130 mm/hour, white blood cells 6300 /cubic millimeter, 65.6% neutrophils, plasma fibrinogen 854 mg/dL, serum creatinine 1.70 mg/l (GFR 44 ml/min/1.73m^2).

Diagnosis: advanced deforming and erosive form of polyarticular tophaceous gout, recently complicated with MRSA infection (treated). Patient's participation in the rehabilitation program was limited by the dysfunctional medical comorbidities and neurologic status. Patients with this disease are not definitively cured, they need to be monitored and educated to avoid certain foods or to do the right treatment.

Lifetime diet, long-term colchichine 0.5 mg twice per day and allopurinol 300 mg twice per day, neurotrophic factors, antihypertensive, antiplatelet therapy, and follow up were indicated at discharge.

ID 5 Involuntary Movements Associated to Multiple Sclerosis – an Underdiagnosed and Undertreated Condition

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Background: Involuntary movements can rarely precede the diagnosis of multiple sclerosis (MS), but more frequently they can occur in the evolution of a patient with MS acutely (during a relapse), insidious and slowly progressive or can be induced by the disease modifying or associated treatments.

Material and Methods: During July 2017- July 2018 we studied, in the Colentina Clinical Hospital, 31 patients diagnosed with MS and MD (18 women and 13 men) with a mean age of 39±2 years and a mean duration of disease of 10 years. We calculated EDSS, analyzed 31 cerebral and 12 spinal cord MRI examinations and the specific and associated treatments.

Results: and discussions: The most frequent involuntary movement was tremor (21 patients), followed by seizures (3 patients), facial hemispasm, myoclonus and tics (2 patients each), hemiballismus, parkinsonism and restless leg syndrome (1 patient each). The onset was acute in 9 cases, progressive in 20 cases and 2 cases presented motor tics before MS. In 70.97% of the cases MRI exams showed demyelinating acute or chronic lesions that could be directly responsible for the diagnosed movement disorder, in 12.91% lesions that could indirectly induce them and in 16.12 % there were no lesions that could explain the symptoms, but this suggested other pathophysiologic mechanisms excepting medication induced involuntary movements.

Conclusion: Involuntary movements can be associated to MS, caused by demyelinating cerebral or spinal cord lesions, induced by associated pathology and treatments or by other pathophysiologic mechanisms. This condition, despite its frequency, evidence and impact on life's quality, has no available scoring scales, and remains underdiagnosed and undertreated.

ID 23 Acute Idiopatic Trombocytopenic Purpura in a Hemodialysis Patient

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Background: Idiopathic thrombocytopenic purpura (ITP) is defined as an autoimmune hematologic disorder, characterized by isolated thrombocytopenia without a clinically apparent cause. ITP is determined by the presence of antibodies directed against platelet membrane components.

Acute ITP is most commonly seen in young children (2 to 6 years old).

The onset of an ITP in an adult hemodialysis patient, who has an immune-compromised status, is not common.

Case presentation: A 69-year-old female patient, known for type 2 diabetes with insulin, hypertensive, CKD stage 5 KDIGO in chronic hemodialysis program for 2 years, reported spontaneous bruising and persistent left anterior epistaxis, since past 2 weeks. The lower bilateral limbs purpura, sclera-tegumentary pallor, generalized bruises in different stages of evolution and bleeding bubbles in the mouth, were in evolution observed. Laboratory tests highlighted: severe thrombocytopenia (3000/ mmc); FL: moderate anisocytosis, polychromatophilic macrocytes, light hypochromy, rare hiperlobulate granulocytes; increased LDH.

In the medulogram granulocyte and erythroblast series were normal, but with present megakaryocytes and reduced thrombocytosis. HIV antibodies were negative. ANA, direct antiglobulin, lupus anticoagulant and thyroid function were normal.

The patient required substitution treatment with CEr and CTb. IV corticosteroid therapy was urgently initiated. During hospitalization, the patient presented a febrile episode with hypoxemia. Haemocultures were positive for methicillin resistant Staphylococcus aureus. Chest X-ray revealed a small infiltrated infrared alveolar right. Antibiotic therapy was instituted according to creatinine clearance.

Treatment with Cyclophosphamide 100 mg / day was initiated and maintained for 2 months.

Also, a fusion protein analog of thrombopoietin, was administered (Romiplastims). The corticosteroids, with the progressive dose drop being maintained for 3 months

Clinical and paraclinical evolution was very good.

Conclusion: ITP in adults is typically a chronic disease.

The particularity of the case is constituted by acute onset of idiopatic trombocytopenic purpura in a relatively immunosuppressed hemodialysis adult.

ID 29 In Search for the Lost Sinus Rhythm

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Case presentation: A 86 years old male patient with a history of heart failure (HF) with midrange left ventricle ejection fraction (LVEF), hypertension, chronic renal disease, left bundle branch block, and paroxysmal atrial fibrillation and atrial flutter presented to the emergency room for angina. ECG showed atrial fibrillation with later spontaneous conversion to atrial flutter 2:1, echocardiography revealed a decrease in LVEF to 20%, troponin levels were slightly elevated, and he was referred to emergency coronary angiography which found no significant stenosis. Upon admission he had significant congestion which resolved under high dose diuretics, administered on top of previous best medical therapy for HF. The patient underwent electrical cardioversion to sinus rhythm, but symptomatic bradycardia followed and a pacemaker (DDD) was implanted. His symptoms remitted and LVEF improved to 40% by discharge. After 5 months he was re-admitted showing significant systemic congestion, currently noting the recurrence of atrial fibrillation with adequate heart rate control, and a reduction of LVEF to 20%. Device interrogation showed pacemaker stimulation occurring in less than 15% of QRS complexes, the rest being conducted with a LBBB morphology and thus his device was upgraded to CRT. One month later the patient was asymptomatic and underwent electrical cardioversion to sinus rhythm to ensure best pacemaker capture, noting the improvement of LVEF to 40-45%. However, after four months he was re-admitted for decompensated HF and the recurrence of atrial flutter was documented, along with severe LV dysfunction. While systemic congestion was resolved under high dose diuretic therapy the patient underwent atrioventricular node ablation. He remained on optimal medical therapy for HF and subsequent controls up to one year found a mildly symptomatic patient, with no re-admissions and an improved LVEF of 45%.

Conclusion: The case was interpreted as HF with underlying sick sinus node disease and subsequent arrhythmic induced cardiomyopathy. Initial maintaining of sinus rhythm and eventually disrupting the relation between arrhythmia and LV dysfunction led to long term improvement of myocardial function and symptoms.

ID 31 Antiphospholipid Syndrome and the Kidney

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Antiphospholipid syndrome (APS) is an acquired, immune-mediated thrombophilia occurring alone (primary APS, PAPS) or in association with other autoimmune diseases, mainly systemic lupus erythematous (SLE), (secondary APS), characterized by recurrent venous or arterial thrombosis and /or pregnancy morbidity in association with antiphospholipid antibodies (aPL) and/or lupus anticoagulant (LA) APS is being increasingly recognized as an important cause of renal injury due to thrombosis at any location within the renal vasculature. Accordingly, the renal manifestations of APS may include systemic hypertension in association with livedo reticularis, renal artery lesions, renal infarction, APSN, renal vein thrombosis and increased allograft vascular thrombosis. Testing for aPL must therefore be considered in patients with any of these manifestations. Nephrologists are expected to be involved more frequently in managing patients with APS, whether it is primary, secondary or, most certainly, with CAPS. Renal pathologists should carefully examine renal biopsies obtained from SLE patients with positive aPL for the presence of APSN, as this may have significant implications on therapeutic decisions. Biopsy proven renal involvement in PAPS accounts for one-tenth of patients The most characteristic histopathologic finding of APSN is fibrous intimal hyperplasia. When APS related nephritis complicates SLE nephritis, the course could be rather severe and the renal function could deteriorate Anticoagulation remains the mainstay treatment of patients with renal involvement due to APS. In addition, patients with catastrophic features often require immunosuppressive therapy. Future studies may help to identify more targeted therapeutic agents. We reports a case of a 48 year old woman with antiphospholipid antibody syndrome, a clinical, paraclinical and bioptic diagnostic, with an acute thrombotic angiopathy that caused ischemic damage in the myocardium, pancreas, kidneys and lungs.

ID 32 The Present in Regression of Glomerulosclerosis

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The role of the renin angiotensin System (RAS) in hypertension and end organ damage has long been recognized. Recent advances in genetic models and newly available pharmacological tools have allowed dissection of the mechanisms of actions of the components of the RAS in fibrotic kidney disease. Numerous studies have shown that angiotensin I converting enzyme inhibitors (ACEI) are superior to other antihypertensive agents in protecting the kidney against progressive deterioration, even in normotensive persons. Like ACEI, angiotensin II type 1 receptor antagonists (AT1RA) ameliorate or even reverse glomerulosclerosis in rat animal models. These findings suggest that angiotensin II (Ang II) has nonhemodynamic effects in progressive renal disease. The RAS is now recognized to be linked to induction of plasminogen activator-inhibitor-1 (PAI-1), possibly via the AT4 receptor, thus promoting both thrombosis and fibrosis. Interactions of the RAS with aldosterone and bradykinin may have an impact on both blood pressure and tissue injury. The beneficial effect on renal fibrosis of inhibiting the RAS likely reflects the central role that angiotensin has in regulating renal function and structure by its various actions. This communication explores the interaction of the renin angiotensin aldosterone System with PAI-1, and the potential significance of these interactions in the pathogenesis of progressive renal disease and remodeling of renal sclerosis.

ID 34 Challenges of Diagnosis in the Case of a Patient with Lewy Body Disease Associated with Neuroleptic Sensitivity

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Objective: – Lewy body disease (LBD) is a neurodegenerative disorder. Lewy bodies (abnormal deposits of alpha-synuclein) build up in different areas of the brain causing manifestations such as: dementia, motor abnormalities, visual hallucinations, sleep problems and fluctuating cognition. Half of the LBD patients treated with neuroleptics exhibit a non-dose-related „sensitivity reaction" ranging from psychotic episodes to neuroleptic malignant syndrome.

Method: A 56-year old male with medical history of dyslipidemia, on antiplatelet and hypolipemiant medication, presented to our clinic for 6-month-old psychomotor agitation, 4-month-old bizarre behavior (moving furniture around his house with no apparent reason), visual hallucinations and sleep problems (involuntary movements of all the limbs and talking in his sleep). 8 months prior to his admission, he exhibited dysphonia. A non-malignant pulmonary lesion causing left vocal-chord paresis was incriminated. One month later, the patient noticed right hemiface involuntary movements for which he received antiepileptic drugs. Later on, he exhibited memory problems and confusion for which he was admitted to the Psychiatry department where he received neuroleptic medication.

Results: There, his behavior became erratic with him writing "HELP" on the furniture. Neurological examination was normal except fluctuating upper limbs cogwheel rigidity. The Mini-Mental-State-Examination and the Montreal-Cognitive-Assessment scores were initially 28 out of 30. The polysomnography revealed the presence of Rapid-Eye-Movement Behavior Disorder and severe Obstructive Sleep Apnea Syndrome with oxygen desaturation up to 69%. Due to his psychotic behaviour, he was given Clozapine. His state worsened - he hid behind doors and threw objects around while claiming he was fishing. The neuroleptic was discontinued due to a supposed behavioural sensitivity reaction and the patient's status improved. Based on the current guidelines, he was diagnosed with LBD. Treatment with Rivastigmine was initiated.

Conclusion: Detailed medical history, careful neurological examination and extensive work-up should guide the clinician in accurately diagnosing LBD despite the diagnosis

ID 35 Hepatitis B Virus Infection, Still an Important Problem in Romania

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Objective: The likelihood of viral hepatitis B infection progressing to chronic hepatitis is high, especially in perinatal acquired infections, so the necessary interventions for the pregnant woman and the newborn should be firm and timely. The main objective of this research is to contribute with additional information to establish the insufficiently outlined epidemiological profile of the pregnant woman with HBV disease/infection in Romania and to recommend public health interventions.

Methods: We conducted a retrospective, linear, observational study during the January 2017 - December 2017 at Ploiesti Hospital, Gynecology department, including 3580 women gave birth, for which we analyzed general characteristics such as age and number of pregnancies, other infections associated with hepatitis B infection, the way of the infant's birth and feeding. Also information on consumption of hepatic toxicities, patients environment, level of education (average or higher), number of tasks, and marital status were included.

Results: 41 (0.79%) of the included patients had chronic hepatitis B (VHB) and coinfections (B/D, B/C). The women were between 20 and 38 years-old, 73% were married, 54% were living in the urban area and 78% had average studies. 37% were at the first pregnancy and 71% gave birth through cesarean intervention.

Conclusion: Good collaboration between obstetricians, gynecology, infectious diseases and neonatology specialists is the key to a further decline in maternal and fetal transmission. Many of these interventions could be more effective, not only by better understanding of epidemiology and disease impact, but also by improving diagnosis and treatment, developing vaccines, and educating the population. In this respect, a better monitoring and evaluation of the VHB prevention and control programme has a high importance.

ID 36 Endovascular Treatment Using Stent Grafts an Important Procedure for Complete Obliteration of Direct Carotid-Cavernous Sinus Fistulae – Case Series

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Objective: Nowadays the commonly used therapy for direct carotid-cavernous sinus fistulae (DCCFs) consists in endovascular treatment.

Emerging studies highlight stent graft (SG) obliteration of DCCFs as a viable option, especially in cases where the balloon occlusion test revealed reduced patient tolerance.

The aim of this case series is to present case-selected SG endovascular treatment of DCCFs.

Method: Case series of 4 patients admitted to our Neurology Department during 2007-2018. All patients were diagnosed with DCCF by means of digital subtraction angiography of the cervical-cerebral vessels, all of them being posttraumatic (1 car, 1 bike, 1 home accident and 1 victim of domestic violence). Two patients were male and two female, mean age being 39 (29-49).

Results

Case 1: right DCCF between the intracavernous internal carotid artery (ICICA) and the cavernous venous sinus (CVS) with rapid venous drainage into a tortuous and much dilated right ophthalmic vein – 1 SG.

Case 2: left DCCF between the ICICA and the CVS with venous drainage into both ophthalmic veins – 2 SGs and multiple balloon angioplasties.

Case 3: left DCCF between the ICICA and the CVS with venous drainage through the left ophthalmic vein – 2 SGs and multiple balloon angioplasties.

Case 4: right DCCF between the ICICA and the CVS with rapid venous drainage into the right jugular and superficial facial veins - 1 SG.

Successive follow-up visits revealed patent SGs, complete occlusion of the fistulae and clinical improvement.

Conclusion: Endovascular treatment with SG proves to be a safe and effective method of DCCFs obliteration in selected cases.

ID 39 An Unusual Case of Post-Colonoscopy Appendicitis

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Introduction: Colonoscopy is a procedure used for diagnostic and therapeutic purpose with a low morbidity rate but its complications must promptly recognised by the operator.

Case presentation: 61-year-old patient is scheduled for diagnostic upper and lower endoscopy. During the last 2 months he exhibited 2 episodes of diffuse abdominal pain, diarrhea and vomiting, without fever or chills.

Physical abdominal examination shows mild tenderness, no guarding, normal bowel movements.

Laboratory studies reveal dyslipidemia, with no anemia, no hepatocytolysis and no inflammation.

Abdominal ultrasonography shows hepatic steatosis.

Upper endoscopy reveals Los Angeles grade A reflux esophagitis.

A standard complete colonoscopy is performed with no complications during the procedure, no abnormal findings and no therapeutic procedures. The caecum and the appendix orifice are normal, without inflammation or erythema.

24 hours later the patient returns to the hospital with marked abdominal pain, rebound tenderness at McBurney's point and positive Rovsing's sign.

Management and results: Laboratory data shows a white blood cell count of 16.500/ uL, CRP of 144 mg/, ESR 42 mm/h. On chest X-ray no free intraabdominal air is identified. Abdominal ultrasonography shows thickening and hypervascularity of the caecal wall and appendicitis is confirmed by a same-day CT scan.

Retrograde laparoscopic appendectomy is performed with unremarkable postoperative course. The patient was discharged with full recovery 3 days later. Histopathology report confirmed acute appendicitis.

Literature review: Post-colonoscopy appendicitis is a very rare occurrence with only 27 published cases. Several mechanisms have been proposed: barotrauma from over insufflation, appendix obstruction with fecalith and/or inflammation, direct trauma by inadvertent intubation of the appendicular lumen, exacerbation of pre-existing preclinical disease.

Conclusion: With this case report we want to highlight the importance of promptly recognizing early acute appendicitis after colonoscopy to avoid further complications and provide early treatment.

ID 43 Therapeutic Efficiency of PDL in Erythemato-Teleangiectatic Rosacea – a Retrospective, Observational Study

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Introduction and objectives: Rosacea represents a chronic inflammatory skin condition, with different stages and significant impact on the patient's quality of life. With various therapeutic modalities available (topical, systemic, lasertherapy), proper management can be a challenge in some cases. The aim of this study was to determine the therapeutic efficiency of PDL in patients with rosacea, by assessing the specific clinical grading systemic and quality of life questionnaire (RosaQOL).

Materials and methods: Our paper reports on 71 patients, between 20 and 76 years old, with eythemato-teleangiectatic rosacea. Data (demographics, personal and family medical history, treatment, clinical grading system and RosaQOL values) was collected retrospectively between January 2016 and June 2017.

Results: A predisposition towards female gender was assessed (F:M = 45:26), with a predominance of the seventh decade of age in males (20%) and fourth (15%) - fifth (15%) in females. Average value of clinical severity scores before treatment was higher in males (9.5), compared to females (8.4), while RosaQOL values were higher in females (69.9) compared to males (62.4). Topical metronidazole was used the most (13%), followed by azelaic acid (4%); only 8% of patients were treated with pulse dye laser (average session number = 6.3) and all associated photoprotection. In PDL-treatment group, an overall decrease in both clinical score (from 9.5 to 8) and RosaQOL (from 65.08 to 53.1) was recorded.

Conclusion: Males tend to develop more severe clinical types of rosacea, while females tend to have a more significant quality of life impairment. Pulse dye laser remains the gold standard of treatment in patients with erythemato-teleangiectatic rosacea, with multiple sessions required for an optimal outcome. Still, combination therapeutic regimens are the cornerstone in the management of rosacea patients.

ID 44 Viral Exanthems in Children – a Retrospective, Observational, Descriptive Study

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Objective: Exanthems represent eruptive conditions with various morphological features and multiple etiologies, from allergies to drugs or viruses. In children, the most common cause is represented by a viral infection. The aim of this study was to highlight a clinico-epidemiological profile of children with cutaneous exanthematous eruptions in the setting of viral infections.

Methods: Our paper reports on a group of 152 pediatric patients with viral exanthematous conditions (measles, rubella, varicella, roseola infantum, erythema infectiosum and nonspecific). Data (demographical, diagnosis, signs and symptoms, vaccination status, treatment) was collected retrospectivelly between January 2016 and July 2017.

Results: A slight prevalence of males (M:F = 82:70) and an age peak in the infant group (36%) were recorded. The most frequent diagnosis was varicella (35%).

In the infant group, the predominant diagnosis was roseola infantum (56%), rubella in toddlers (75%) and pre-school children (25%), in grade school children – varicella (30%), while in teenagers measles was most frequently encountered (3%).

Fever was registered in all patients, higher in males. Pneumonia was the proeminent finding in females with measles (93%), while adenopathy was encountered in all males with rubella. Six % of measles patients were vaccinated with the compulsory MMR vaccine, most of them from urban areas; no patient with varicella was vaccinated with the optional vaccine and only 13% of patients with nonspecific exanthems were vaccinated according to the national reccomendations. All patients received supportive treatment and most patients with dexamethasone; varicella patients were treated predominantely with acyclovir (96%).

Conclusion: The younger the child, the higher is the chance of developing a viral exanthema, with fever being the most prevalent sign. Most patients in this study were not vaccinated either with compulsory or facultative vaccines, which highlights the need for raising awareness in this field, especially among rural population.

ID 47 Budd-Chiari Syndrome – Etiology, Diagnosis and Prognosis

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Objective: Budd Chiari syndrome, defined as obstruction of the hepatic veins, may appear as a primary condition or secondary to abdominal or systemic diseases, such as abdominal malignancies or inflammatory conditions, post-surgery, or hematologic malignancies. This paper aims to review potential causes of Budd Chiari syndrome, diagnostic options and therapeutic means.

Methods: We present 6 cases of patients diagnosed with Budd-Chiari syndrome (two with abdominal malignancies, two with Budd Chiari syndrome after liver resection and two with myeloproliferative diseases).

Results: The patients were asymptomatic or presented signs of the underlying condition. Ultrasonography and contrast-enhanced ultrasonography have proven high sensitivity and specificity in the diagnosis of Budd Chiari syndrome; furthermore, contrast enhanced ultrasonography was able to differentiate between malignant and benign hepatic vein thrombosis. In the case of Budd Chiari syndrome associated with liver resection, we chose a conservative approach by periodic monitoring, as the patients presented no signs of liver damage and the underlying condition was considered cured. In the case of abdominal malignancies, treatments were tailored to the patients' clinical status and extent of the disease, aimed at surgical or interventional solutions when possible. Anticoagulation was the treatment of choice in Budd Chiari syndrome associated with myeloproliferative disorders.

Conclusion: Budd Chiari syndrome is a rare complication of several systemic or abdominal pathologies. Its diagnosis is critical for the optimal management of patients and the timely diagnosis of possible complications.

ID 48 Difficulties in the Etiological Diagnosis of Acute Pancreatitis Combined with Disseminated Intravascular Coagulation

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Background: The cause of acute pancreatitis (AP) is not always obvious. Among the (very) uncommon causes are medication and paraneoplastic phenomena.

Material, methods, and results: A 61-years-old man, former smoker, with a history of hypertension, myocardial infarction, diabetes, was diagnosed in February 2019 with 4B stage bronchopulmonary neoplasm and pulmonary, vertebral, liver, and adrenal glands metastases. He was admitted to hospital for an upper vena cava syndrome. Palliative radiotherapy resulted in a favorable outcome. Shortly, after discharge, the patient returned complaining of severe thoracolumbar pains extending to lower limbs that opioids failed to control. Thoracolumbar spine x-ray revealed important degenerative changes but the patient was also known to have vertebral metastases. Acetaminophen, Fentanyl patch, steroids were given to mitigate pain. The following day, the patient developed abdominal pain, nausea and vomiting. Lab: high lipases and amylase, prolonged clotting times, low hemoglobin, platelets and fibrinogen, suggesting pancreatitis and disseminated intravascular coagulation (DIC). CT scan revealed edematous AP. Clinical and lab manifestations slowly subsided under conventional treatment. There was no evidence for the most common causes of AP: normal gallbladder and no evidence of gallstones or biliary sludge on CT and ultrasound, no alcohol consumption, normal serum calcium and triglycerides levels. Corticosteroids (known to induce AP by increasing pancreatic juice viscosity) were the most probable culprit, but a paraneoplastic etiology (generally attributed to IgG4-related autoimmunity) may also be considered. DIC may be a paraneoplastic event, but in this case it was most certainly the consequence of AP.

Conclusion: The occurrence of AP in a cancer patient in the absence of an obvious cause may pose some diagnostic and management challenges as what is the cause in some instances (corticosteroids) may be the treatment in others (paraneoplastic autoimmune AP).

ID 49 Rehabilitation Program in Post-Surgical Cervical Disk Herniation Pathology

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Introduction: Objectives: There is an increase of the disk pathology and surgical spine pathology in cervical region, with the approach of modern techniques – in the past 2-3 years we encountered many cases of artificial disc replacement with Mobi C or cervical Peek cage fusion.

The results were extraordinary in general, but there is the possibility for some post-surgical status that can become or can develop complications in time, with painful and dysfunctional sequelaes, which can benefit of rehabilitation program.

Methods: This paper presents a review of the cervical spine post-surgical cases, different surgical techniques and the most frequently clinical-neurological and functional aspects after surgery – based on case-presentations from our Clinique experience.

Results: The advantages of the Rehabilitation program in a resort are based on using not only the classic therapeutic possibilities, but also on using the natural factors from that area – in our case, the hospital is situated in Eforie Nord and we benefit on the Techirghiol Lake facilities - sapropelic mud and the salty water, as general bath procedure and hydrokinetotherapy in the pool.

Conclusion: The results based on objective measurements using clinical scales (VAS, FIM, QoL) prove the improvement of the general and functional status of the patients after the balneary session and a better adherence at the long-term rehabilitation programs, due to the hydro- and peloido-therapy additional benefit in post-surgical patients.

ID 50 The Effect of Medical Recovery Therapy on the Motor Development of a Patient with Prader Willi Syndrome

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Objective: This paper presents the results of a study which has assessed the evolution of the values of several relevant parameters (muscle strength, gait, walk, spinal deviations and overall motor development) in a patient diagnosed with Prader Willi syndrome which has been clinically evaluated during periodic admissions in the National Clinical Center for Children's Neuropsychomotor Rehabilitation ,,Dr. Nicolae Robanescu'', Bucharest.

Methods: Muscle strength was assessed for nine muscle groups, gait was clinically assessed and plantar support was evaluated.

The levels of erythrocyte sedimentation rate and the C-reactive protein were assessed in the Center's Laboratory and comparison to the ones in literature for the pediatric obese and non-obese population is presented.

Blood pressure, serum calcium, vitamin D levels, BMI, hight and IQ have been periodically assessed.

The patient's medical records corresponding to the admissions during October 2014 up to the present time were assessed, focusing on the evaluations obtained after the pediatric, radiological and medical recovery consults, as well as on the kinetotherapy evaluation sheet. The data was processed and correlated.

Results: Up to now, the results consist of an increase of the muscular strength in the analysed muscle groups, the improvement of the plantar support as well as a global improvement of the patient's development acquisitions. The differences in the mechanisms involved in the production of inflammation in this patient, compared with the data reported so far for general obesity in the pediatric population, are presented.

Conclusion: Although, currently, a genetic therapy for the treatment of Prader Willi syndrome hasn't been developed yet, following a medical rehabilitation program can lead to the improvement of the prognosis of this disease. The mechanisms responsible for the inflammation in Prader Willi syndrome need further clarification.

ID 51 Liver Biopsy – Useful for the Diagnosis of Ovarian Adenocarcinoma?

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Introduction: Most frequently, ovarian adenocarcinoma metastasizes in the liver, peritoneum, lung and lymph nodes. Case presentation. A 74-year-old hypertensive and dyslipidemic woman presented for bilateral leg edema, increased abdominal volume and dyspnea at moderate efforts. The patient was known with a history of ovarian adenocarcinoma, with hysterectomy and bilateral anexectomy 8 years ago. Physical exam: balanced cardio-pulmonary, with bilateral leg edema, abdomen sensitive to palpation in the right upper quadrant, with the inferior edge of the liver at 3-4 cm below the rib cage, of medium consistency and irregular surface. Abdominal ultrasound revealed an non-homogeneous mass in the right liver lobe, of 8 cm in diameter and 2 hypoecogenic masses, with a diameter of 2 cm and 1.8 cm, pelvic ascites. The CT exam revealed a small amount of bilateral pleural fluid, calcified pulmonary micronodules; paraorticular adenopathies with tendency to confluency, of max 18/16 mm, nodules in the right thyroid lobe with cystic appearance and calcifications; a iodophilic tumor mass, encompassing ileo-cecal valves; carcinomatosis and large ascites fluid. Liver with multiple hypodense lesions, with areas of necrosis, suggestive of secondary determinations. Spleen with numerous nodal lesions, suggestive of secondary determinations. Hepatic biopsy was performed, with histopathological examination and immunohistochemical tests that supported the diagnosis of a poorly differentiated hepatic metastasis from a genital or mammary adenocarcinoma. Considering the patient's history, the origin of the tumor is most likely ovarian.

Conclusions: In spite of performing imaging investigations, sometimes the determination of the primary tumor site can be confirmed only by histopathological and immunohistochemical examination of secondary tumors.

ID 52 The Association between Chronic Heart Failure and Chronic Obstructive Pulmonary Disease in Patients Admitted to an Internal Medicine Clinic

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Introduction: Patients with chronic heart failure frequently associate multiple comorbidities, which influence their evolution and prognostic. Chronic Obstructive Pulmonary Disease (COPD) is a relatively common comorbidity of these patients.

Material and method: We performed a retrospective study on patients admitted to the Clinic of Internal Medicine of a clinical emergency hospital with a diagnosis of chronic heart failure. The data were extracted from the hospital's computer database, using "chronic heart failure" as a search term. We analyzed patients admitted during the period 01.10.2017-01.03.2018. Demographics, clinical and paraclinical data, as well as therapeutic data, were further extracted and analyzed with Microsoft Excel Starter 2010.

Results: During the mentioned period, 390 patients were diagnosed with heart failure. 7% of them associated COPD and represented our study group. The distribution by sex of the patients with heart failure and COPD: 72% men, 28% women. Distribution of left ventricular ejection fraction (LVEF) in the patients of the study group: 20% had intermediate LVEF (40-49%), 36% of patients had sustained LVEF (≥ 50%) and 44% had low LVEF (<40%). GOLD distribution: 7% of patients are in GOLD 1, 27% in GOLD 2, 45% in GOLD 3, and 21% in GOLD 4. Of the 29 patients with heart failure and COPD, 8 had diastolic dysfunction, 16 had systolic dysfunction and 5 patients had no record of LVEF. From a therapeutical point of view, 4 patients had inhaled corticosteroid therapy, 9 theophylline, 19 anticholinergic medication, and 20 beta-agonists. No patient underwent treatment with phosphodiesterase 4 inhibitors.

Discussion: 7% of patients with chronic heart failure admitted to the Internal Medicine clinic associate COPD. Most of these patients are male (72%) and have heart failure with systolic dysfunction. 45% of the patients admitted with the diagnosis of heart failure and COPD are in Class 3 GOLD. Most patients are treated with beta-agonist and inhaled anticholinergic medication.

Conclusions: Patients with chronic heart failure and COPD are a subpopulation with particular characteristics, the association of the two comorbidities increasing the risk of hospital admission and requiring careful clinical and paraclinical monitoring.

ID 53 Exploring Perceptions and Level of Knowledge Regarding Immigration in Medical Students

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Objective: To assess the attitude, perceptions and knowledge level regarding immigration in medical students.

Methods: Observational cross-sectional study, conducted in 2019 in a sample of 504 fifth year Romanian module students, Faculty of Medicine, University of Medicine and Pharmacy "Carol Davila", Bucharest, aged 23.3±1.36 years, median 23. 72% women, 96% Romanians and 4% foreign students from 11 countries. For data collection we used a questionnaire with 16 items - 5 for personal data, 10 exploring perceptions towards different aspects of immigration (personal and country of origin perspective) and 1 item assessing the level of knowledge regarding immigration (quantitative scale 0-5p), applied via Google Forms. We performed a comparative analysis on perceptions (frequency hierarchies) and knowledge level, in Romanian vs. foreign students, and by gender and residence for the Romanians.

Results: Romanian students' opinions are divided between positive and negative perceptions, seeing immigration both as opportunity & issue, with 47.5% positive, 27% negative, not known (1/4) influence on the host country, while foreign students perceive it more like an opportunity (11/22) and having a positive influence (18/22). Both groups agree on immigration reasons – economic reasons, access to education, security issues, on the capacity of integration (partial) and the potential problems - overloading social services, economic issues, menacing locals' working places and religious issues. Significant differences were registered for knowledges level: mean score 3.81±1 in foreign vs. Romanian students 2.73+/-0.9 ($p<0.0001$, t test), who got also significant differences by gender M: 3.05±1.05 vs F: 2.6±0.8 ($p<0.0001$, t test) and by residence - Bucharest 2.81±0.96 vs. other cities 2.68 ± 0.8 and rural 2.45± 0.94 ($p=0.036$, one-way ANOVA).

Conclusion: Despite the limitations, sampling method and the little number of foreign students, the results have indicative value and may suggest necessary actions for improving Romanian medical students' awareness and knowledge regarding immigration.

ID 54 The Ongoing Challenge of Acute Gastrointestinal Bleedings

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Introduction: Lower intestinal bleeding can have various causes, among which ischemic colitis, with an overall mortality of 38%. Ischemic colitis can be undiagnosed or misdiagnose in the absence of colonoscopy and frequently requires surgical interventions if the lesions are extensive.

Case presentation: A 66-year-old woman with history of stage IV chronic kidney disease, right nephrectomy, splenectomy and type I obesity, presented for hemorrhagic shock, occult gastrointestinal bleeding and acute posthaemorrhagic anaemia. She underwent upper endoscopy and colonoscopy without revealing an active site of bleeding. Due to multiple systemic dysfunctions, the patient was admitted into the intensive care unit and she needed respiratory, inotropic and vasopressor supports, blood transfusions, correction of the acid-base and hydroelectrolytic disturbances and continuous renal replacement therapy with cytokine filter to reduce the level of circulating inflammatory markers. In the second day, a new colonoscopy was performed revealing intense swelling of the transverse and descending colon mucosa with multiple inflammatory stenosis. Based on the findings, she underwent surgical intervention, with subtotal colectomy and terminal ileostomy. After 3 days, the patient was extubated, but she needed high flow oxygen therapy in order to maintain a normal respiratory status. A new upper endoscopy and colonoscopy were performed, revealing type III hiatal hernia and extensive gastritis for which therapy with proton pump inhibitors was started. The evolution was favorable and after 10 days, she was discharged into the surgical ward.

Discussions: In the presence of lower intestinal bleeding, colonoscopy may not reveal the active site if the bowel is unprepared. Studies have shown that right colon ischemia or involvement of both right and left colon and age over 50 years are associated with poor outcome.

Conclusion: Ischemic colitis can led to lower gastrointestinal bleeding and even to hemorrhagic shock, and in cases with extensive mucosal inflammation, surgical intervention is required.

ID 55 Gynecomastia, Side Effect of Testosterone Replacement Therapy in a Patient with Hematopoietic Stem Cell Transplantation

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Introduction: Breast tenderness and swelling may occur during testosterone replacement therapy (TRT) due to aromatization of testosterone to estradiol. It is a rare finding with the doses used to restore normal testosterone levels and is reversible with cessation of therapy or switch to a preparation that contains dihydrotestosterone.

Case report: We present the case of a 16-year old boy, diagnosed with acute lymphoblastic leukemia (ALL) at the age of 3.5 years, that had bilateral orhidectomy at the age of 11 (right testicle) and 12 (left testicle), respectively for extramedullary metastases. At the age of 13 he received allogenic hematopoietic stem cell transplantation (HSCT) from unrelated donor at Fundeni Institute with a good clinical outcome. He was evaluated in our Endocrinology Department at Elias University Hospital one year after HSCT for primary hypogonadism. Laboratory findings revealed hypergonadotropic hypogonadism (FSH=59.24 mIU/ml, LH=21.67 mUI/ml). The DXA scan at that point showed a decreased bone mineral density (total body less head bone mineral density 0.961 g/cm2, z-score=-1.6 SD). Therefore, we decided to start replacement therapy with testosterone with a gel preparation (5%). After the first 2 weeks he noticed breast tenderness and swelling. An ultrasound was performed and showed bilateral retroareolar breast tissue (2 cm) and inflammatory axillary lymph nodes. Parents were unwilling to continue with the treatment and it was stopped for three months. The gynecomastia disappeared with cessation of testosterone therapy. The treatment was reinitiated after three months and at this point it was better tolerated, in spite of the fact that the doses were similar to those first used. In the present, he is well sexualized and the DXA scan performed 3 years after starting of TRT showed a significant increment in bone mineral density (z-score=0.3 SD). The patient did not encounter any other side effects until the time being.

Conclusion: In conclusion, we want to emphasize that patients may present with various side effects when starting TRT, most of them being mild and transient. Patients may continue with the treatment, provided that secondary determinations are excluded.

ID 58 Assessment by Imagistic Complementary Techniques of the Patient with Atypical Angina

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Purpose: Acute myocardial infarction is one of the main causes of mortality and morbidity. Previous chest pain often atypical is a common symptomatology described by patients, differential diagnosis requiring both clinical experience and paraclinical investigations. Imaging investigations play an important role in determining the correct diagnosis.

Material and method: We present the case of a 60-year-old male patient, non-smoker, hypertensive, dyslipidemic, normoponderal, working in Emergency Clinical Hospital, treated with aspirin, statin, IECA, diuretic. He presented himself at the Cardiology Clinic accusing a precordial embarrassment that appears relatively rarely, especially during the morning, and it was hard to tell the link with the physical effort, unaccompanied by other manifestations. The ECG shows sinus rhythm AV 80 bpm, AQRS at -20grade, no ST-T changes. Biologically without enzymatic dynamics for myocardial necrosis, and cardiac ultrasound without significant segmental kinetic disorder.

An ECG exercise test was performed that was maximal, negative for myocardial ischemia, Duke 3 score - moderate risk. Because the patient also accused during TTE a slight precordial embarrassment that did not limit the effort, it was decided to explore through myocardial scintigraphy at stress and rest.

The result of radioisotope exploration - extensive anterior myocardial ischaemia, induced by effort, reversible at rest - recommends coronarography.

In invasive exploration, there are 90% IVA and ACD stenosis that have been instrumented by placing stents.

Conclusion: In cases where chest pain is atypical and non-imagistic ischemia tests are negative, exploration by imaging stress methods such as myocardial scintigraphy that evaluates infusion, motility and thickening of the myocardial wall, bring important information for the diagnosis is recommended. the therapeutic decision.

ID 61 Hyponatremia: Problems of Differential Diagnosis

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Introduction: Natrium has an essential role in maintaining extra-cellular fluid levels.

Case presentation: A 75-year old female patient, known with arterial hypertension, dyslipidemia, type 2 diabetes mellitus, major neurocognitive and depressive disorder, under treatment with escitalopram, memantine, oral antidiabetic drugs, diuretics, was admitted for confusion, astenia, fever. The patient had two hospitalizations 2 years before for severe hyponatremia, attributed to diuretic and Colonhelp medication. At the current admission, the patient presents pale skin, bilateral calf edema, blood pressure of 170/95 mmHg, heart rate 60/min, without abdominal pain. The diuresis is normal, Giordano maneuver negative. Lab tests revealed severe hyponatremia (111 mmol/L), mild anemia (Hb 9.80 g/dL), leukocytosis with neutrophilia, normal BUN and creatinine. The urine culture was positive for *Enterococcus* spp, sensitive to Ampicillin. Treatment with Ampicillin/Sulbactam was initiated, along with water restriction. The psychiatric examination recommended the decrease of psychiatric drugs' doses (escitalopram and memantine), as possible causes of iatrogenic hyponatremia. The endocrinological consult did not reveal any pathological changes, the plasmatic values of cortisol and TSH being within normal values. Meanwhile, the patient received correction of hyponatremia with saline solutions (NaCl 5.85%). The 24 h urine exam revealed an increased urinary excretion of sodium. The positive diagnosis was a salt-losing nephropathy, triggered by the urinary tract infection, on the background of chronic nephropathy induced by arterial hypertension and diabetes mellitus. Sodium levels corrected slowly, and the hemogram normalized.

Conclusions: Hyponatremia is an electrolyte disorder which can lead to severe complications. The etiological diagnosis of hyponatremia can be sometimes difficult, especially in patients who can have multiple causes of hyponatremia, as the patient presented: treatment with selective serotonin reuptake inhibitors, salt-losing nephropathy, SIADH, treatment with diuretics etc.

ID 64 Thoracic Extrapulmonary Hydatidosis

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Thoracic extrapulmonary cases of hydatidosis form an extremely rare disease and usually they are secondary to previous surgery of hydatic cysts; primary thoracic extrapulmonary hydatidosis is exceptionally.

Material. During 2000-2018, to Thoracic surgery department of National Institute of Pneumology Marius Nasta, were referred for surgical treatment about 305 cases of hydatidosis. We present here the cases of 3 of them who had primary thoracic extrapulmonry localization. In 2 of this cases, hydatic disease wasn't taken in consideration as a diagnosis after preoperative investigation.

The first case was one of a 38 years old female with history of chest pain and fever starting 3-4 month before admission. Clinical exam revealed pseudo-tumor localized in upper 1/3rd of sternum, painful by touching, with local inflammatory signs. The preoperative differential diagnosis included primitive tumor and sternum abscess. The diagnosis was obtained after the surgical intervention from the histopathological examination.

The second case was one of a 27 years old male, with progressive disphagia and no medical history. Imagistic studies proved the presence of a cystic tumor in posterior mediastinum. The preoperative diagnosis included lymphatic cyst, bronchogenic cyst and enterogenic cyst. Again, the diagnosis was established by the histopathological examination.

The third patient was a 27 years old male, with left lung cyst and liver cystic lesion. The hydatic cysts were now localized within left pulmonary artery.

Conclusion: Primary hydatidosis, with thoracic extrapulmonary localization is an exceptionally rare disease, positive diagnosis being an intraoperative surprise in most cases.

ID 66 A Rare Case of Diabetes Insipidus

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Introduction: Diabetes insipidus (DI) is a disorder defined by excretion of large volumes of hypotonic urine and polydipsia. The cause is either central, a deficiency of the hormone arginine vasopressin (AVP) in the pituitary gland/hypothalamus (neurogenic DI), or peripheral, resistance to the actions of AVP in the kidneys (nephrogenic DI). Like other endocrine disorders the diagnosis of DI can be challenging.

Case presentation: A 71 years old pacient is admitted for dizziness, vertigo, loss of appetite, lethargy, polyuria (approximately 5 l per day) –symptoms aggravated in the last 2 months. On clinical examination mild disorientation and significant orthostatic hypotension (BP 145mmHg in clinostatism, 100 mmHg in orthostatism) were noted.

Laboratory studies revealed normocytic normochromic anemia, hypercholesterolemia and low urinary density. Panhypopituitarism and hyperprolactinemia were also present. The computed tomography scan identified a tumour on the pituitary stalk and a pituitary microadenoma. Replacement therapy was immediately initiated; after clinical stabilization a water deprivation test was performed that confirmed neurogenic diabetes insipidus.

The patient was discharged on full replacement therapy (prednisone, levothyroxine and testosterone undecanoate), and the management plan includes an MRI of the sella and neurosurgical evaluation.

Conclusion: Pituitary stalk masses are rare and heterogenous conditions, associated with decreased stimulation of the hypothalamus on the pituitary and impaired transport of the AVP from hypothalamus to the neurohypophysis. Panhypopituitarism and diabetes insipidus occur frequently. Timely diagnosis (sometimes challenging) is life-saving.

ID 70 One Perspective of Anticoagulant Treatment in Elderly Patients – Clinical Case

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Introduction: Atrial fibrillation is one of the most common sustained cardiac arrhythmia and is set to rise up to 3% in the followings years(2050) due to demographic increase of the elderly population(1).

Methods: A 70 year old female patient with a known history of hypertension and diabetes mellitus, without home treatment, is admitted in the geriatric department for altered general condition, heartburn and pain in the upper abdomen, rapid palpitations with dyspnea and orthopnea at moderate effort. Clinical examination: anxious, obesity (BMI=38.45 kg/m2), bilateral lower extremity edema, tachyarrhythmia (HR=170 bpm), BP=150/80 mmHg, pain in the upper abdomen, functional capacity (ADL=4/6pts, IADL=5/8 pts). Blood test: an inflammatory syndrome (ESR=40 mm/1h), dyslipidemia (TG=300 mg/dL, TC=250 mg/dL), increased glycemic values (GLU=180 mg/dL), glomerular filtration rate (eGFR=52.66 mL/min/1.73m2).

Results: Electrocardiogram: atrial fibrillation with 125bpm, diffuse ischemic changes; Transthoracic echocardiogram: left ventricular ejection fraction at the lower limit of normal (LVEF=45%), no valvulopathy or wall changes; Abdominal ultrasound: a thickening of the gastric mucosa, increased gastric secretion; Upper gastrointestinal tract radiography: sliding hiatal hernia; *Helicobacter pylori* antigen test=positive; CHA2DS2-VASc=5/9 pts, HAS-BLED=2/9 pts. Primary diagnosis: Permanent atrial fibrillation with increased frequency and low risk of hemorrhage, Gastritis with Helicobacter pylori positive, Hiatal hernia type IA. Considering the existing cardio-vascular risk factors (dyslipidemia, diabetes mellitus and hypertension) for preventing other cardiovascular events is required anticoagulation treatment. We decided to recommend New Oral Anticoagulant (Apixaban 5mg x2/day) vs. Acenocoumarol to the patient, due to lower risk of gastro-intestinal bleeding.

Conclusion: Atrial fibrillation prognosis depends on the patient's age and cardiovascular risk factors. Chronic comorbidities, which are frequent in old patients, increase the risk of developing stroke, myocardial infarction, heart failure, coronary heart disease and also dementia. Choosing an oral anticoagulant treatment with lower hemorrhage risk is the best option for elderly with gastro-intestinal disease.

ID 77 Irritable Bowel Syndrome – the Diagnosis Challenge

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Objective: Irritable bowel syndrome (IBS) is the most common „functional" gastrointestinal disorder, affecting more than 10% of the general population in the Western world, with an important impact on quality of life, a leading cause of work absenteeism, implying a substantial cost for the healthcare systems. IBS is associated with comorbid conditions such as: cystitis, pelvic pain, chronic fatigue syndrome, fibromyalgia, anxiety, depression, bruxism and others. The American College of Gastroenterology proposes a diagnostic algorithm that excludes colonoscopy for cases without alarm symptoms, with only routine blood tests needed.

The association of IBS and chronic fatigue syndrome implies, for example, the study of anti-Borrelia antibodies, chronic viral hepatitis, together with the routine blood tests.

Results and conclusions: IBS can be regarded as a disorder of the HPA (hypothalamic-pituitary-adrenal) axis, with an abnormal cortisol response to stressful events, influencing the intestinal motility in predisposed individuals; a disease that affects in many cases even central nervous structures as proven by functional cerebral MRI studies; a disease of the enteral nervous system-malfunctioning, with a greater permeability and migration of bacterial products, a state of chronic inflammation as proved by the constantly increased level for inflammatory cytokines such as Il-1β, Il-6, Il-8, TNF-α, affecting also mood and cognition.

For cases of IBS refractory to standard therapy (antispasmodics, laxatives, probiotics, antibiotics) might be necessary to reassess the global clinical picture; to cooperate with specialists in cognitive behavioral therapy and to perform cerebral fMRI in order to diagnose subclinical forms of anxiety or depression where antidepressants could provide substantial relief.

Therefore IBS should be regarded as a very complex disease, requiring multi-specialist coordination in some cases; adequate therapy of comorbidities; use of high technology imagistics available even in our country, a growing lack of inhibition among gastroenterologists in prescribing antidepressants for severe, refractory IBS patients.

ID 84 Quality of Life Affected by Dermatological Disorders – a Systematic Review

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Objective: To determine the impact of dermatological disorders upon the patients' quality of life and social relationships.

To increase awareness about quality of life affected by dermatological diseases and ways to deal with negative consequences.

Method: Comprehensive quantitative systematic review. Study design: Relied on three steps searching strategy in Scopus, PubMed, Cochrane, Joanna Briggs Library, critical appraisal by pairs of reviewers, 104 out 570 articles were retained for data extraction. The psychosocial and health-related quality of life impact of disease was assessed in groups of 50-135 patients by applying QoL questionnaire modified from Skindex-16, DermatologyLifeQuality Index, Psoriasis Area and Severity Index score, Adjustment to Chronic Skin Disorders, Children's Dermatology Life Quality Index. Percentages of respondents reporting feelings of shame, need to dress differently, restriction on leisure activities, social exclusion, stigmatization, problems with sexual partners, psychiatric disorders.

Results: Dermatological disorders are not life-threatening, but the impact on quality of life is major, leading to impairment in social and professional participation. Effects of dermatological disorders on psychologycal, social, and professional area are presented. Low esteem, embarrassment, social withdrawal and isolation, perceived stigma, cumulative life course impairment, anxiety and depression, daily life impairment are presented by gender and ages where possible.

Conclusion: Early screening, early treatment, needs assessment of patients, disease management should be part of modern dermatological rehabilitation, tasks performed by multidisciplinary teams. There is a need of increased awareness of health professionals and general population regarding the impact on well-being, quality of life of skin disorders. Comprehensive care management must be designed and deployed to skin disorders patients along life course.

ID 91 A Difficult to Treat Hyponatremia Case

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Background: Hyponatremia is a frequent occurrence in elderly under diuretic treatment for various cardiovascular and renal conditions.

Methods: results: A 81-year old female patient treated with diuretics for congestive heart failure was admitted with headache, nausea, vomiting, dizziness, developed over one week. Upon admission sodium level was 117mmol/l. In order to correct hyponatremia, 500mL normal saline, later supplemented with 10-20mEq NaCl, was given daily intravenously during the first 3 days. Unfortunately on the fourth day the patient complained of dyspnea with orthopnea suggestive of pulmonary congestion (corroborated by bibasilar rales on auscultation), presumably the consequence of the intravenous saline; intravenous furosemide relieved dyspnea and raised sodium level (probably furosemide-driven free water excretion). Continuing furosemide administration during the next day led to a drop in natremia. Consequently, both intravenous saline (500mL supplemented with 10-20 mEq NaCl) and furosemide were given with modest improvement in dyspnea but unchanging (or even declining) sodium levels. Progressively increasing the amount of NaCl (up to 60 mEq/day) supplementing the daily 500 mL of normal saline still failed to raise sodium level. Therefore, a last-ditch solution was attempted: 50 mL of molar (5.85%) NaCl solution given as an intravenous infusion (not much different from the current guideline recommendation of 3% NaCl solution), besides intravenous furosemide, resulting in higher natremia. Nevertheless, during the weekend the on-duty physician reinstituted the traditional NaCl supplemented normal saline, and again natremia dropped. A new intravenous infusion of 50mL molar NaCl solution was followed again by an increase in sodium level. Early during the hospital stay, limiting the oral water intake was also attempted, to no avail, however.

Conclusion: In some hyponatremia cases normal saline, even supplemented with molar NaCl solution, is inefficient in correcting natremia and may aggravate dyspnea. Infusing NaCl as a molar solution may be successfully tried in such stubborn cases.

ID 92 Health-Related Quality of Life Evaluation Using Questionnaires in Patients with Chronic Hepatitis C Virus before Receiving Direct-Acting Antivirals (DAA) Treatment

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Objective: Presenting a clinical prospective study about quality of life in patients with chronic hepatitis C virus before receiving DAA treatment. Chronic hepatitis C virus has a negative impact on physical and mental status, influences not only patients' functional health, but also work abilities.

Material and methods: A group of patients was analyzed before starting DAA treatment. The design of the study is prospective and starts from November 2018 at Hospital for Infectious and Tropical Diseases "Dr. Victor Babes" and at "Victor Babes" Private Medical Clinic, Bucharest. Patients received two questionnaires, patient-reported outcomes (PRO): 36-Item Short Form Survey (SF-36) and Hospital Anxiety and Depression Scale (HADS).

Results and conclusions: The total number of patients was 37, men and women, with ages between 34 and 81 years. Gender distribution was not uniform, 29 (62%) women and 8 (38%) men. Most of them are living in urban area, 27(73%) and 10 (27%) in rural area. Stages of liver fibrosis were evaluated by Fibroscan and the results were: 7 patients with F1 Metavir, 10 patients with F2 Metavir, 14 patients with F3 Metavir and 6 patients with F4 Metavir. SF-36 has 36 items, 2 major components and 8 scale scores (ranging from 0 to 100, score 0 means severe affected and score100 means unaffected): Mental Component Score and Physical Component Score. There was observed a correlation between fibrosis and physical function (PF) low score with $p=0.011$. BMI was correlated with emotional role low score with $p=0.022$. Patients from rural area had a low score in PF with $p=0.051$. Analyzing the questionnaires, all the patients had low scores in vitality scale (VT) and in general health perception (GH). There was observed a correlation between fibrosis and physical function (PF) low score with $p=0.011$. BMI was correlated with emotional role low score with $p=0.022$. The other questionnaire, HADS is composed of 2 scales Anxiety and Depression, both ranging from 0-21, higher scores suggesting more severe distress. HADS analysis revealed 17 patients with normal scores – ranging from 3 to 7 points, 11 patients with modified scores – possible cases (ranging from 8 to 10 points) and 9 patients with abnormal scores – probable cases (ranging from 11 to 21 points). From those with modified and abnormal scores, 11 patients had more questions sug-

gesting anxiety, 4 patients suggesting depression and 5 had equal scores in-between anxiety and depression. BMI was also correlated with HADS high score with p=0.008.

People with chronic hepatitis C virus have an increased incidence in mood disorders like anxiety or depression with important impact in social activities and quality of life.

ID 93 Monoclonal Antibody Therapy in Pediatric Patients with Inflammatory Bowel Disease – New Approaches

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Aim: We describe our clinical experience of monoclonal antibody treatment in the last 15 years in Fundeni Clinical Institute, Department of Pediatric Gastroenterology. First we use chimeric monoclonal IgG antibody to tumour necrosis factor-alpha (Infliximab) and in the last 3 years we use a new TNF blocker, Adalimumab.

Methods: More than 30 patients, most with refractory Crohn's disease or steroid dependent Crohn's disease or with ulcerative colitis were treated with Infliximab. All patients received a baseline schedule of three intravenous infusions of Infliximab (0, 2 and 6 weeks), 5mg/kg and maintenance therapy with an Infliximab infusions every 8 weeks. Some patients had before long-term administration of azathioprine or corticosteroids. Pediatric Crohn's Disease Activity Index (PCDAI), nutritional and activity serum variables, and ileocolonoscopy (with histology) were evaluated before and after beginning therapy.

Results: After 8 weeks of therapy most of the patients had a clinical remission (PCDAI < or = 10 points). Part of the patients presenting a good long-term response. A significant increase in both weight and height was observed. In all patients corticostreroids were stopped in 8 weeks after beginning Infliximab therapy. Adverse reactions were observed in few cases, most of them controlled by slowing infusion rate. For patients with allergic reaction and for patients with relapse we use Adalimumab subcutaneous administration (40 mg as first administration and 20 mg/twice monthly for the next 3 month) with very good results. There were no observed cases of TB infection nor cases of malignancies occurred.

Conclusion: Monoclonal antibody is highly effective treatment in children and adolescent with both severe refractory Crohn's disease and ulcerative colitis. It is a safe and valuable treatment in inducing remission and promoting growth. Randomized controlled studies are mandatory to assess long-term efficacy and therapeutic strategy of biological therapy in children with IBD.

ID 95 Good Response in Young Patient with Crohn Disease Treated with Teriparatide

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Introduction: Patients with inflammatory bowel disease (IBD) are at increased risk for decreased bone mass density (BMD) and fractures. Since there is a mostly a glucocorticoid induced-osteoporosis, anabolic treatment with teriparatide (PTH 1,34) can be a solution for these patients.

Case report: We report the case of 33-year-old, male, diagnosed with CD in 2015, with ileal resection and right hemicolectomy (January 2017); treated with prednisolone 12 mg/day, Imuran 3 tb/day, who was evaluated in Elias Department of Endocrinology. He had low bone mass density, receiving oral bisphosphonates (risedronat) for 2 years.

The DXA revealed L1-L4 BMD 0.848 g/cm2, Z score=-3,1 DS with low response to oral bisphosphonates and reduced compliance since gastric intolerance. Bone markers were: low formation- osteocalcin 21.7 ng/ml (24-70) and betacross laps 0.24 ng/ml (<0.584). Based on the long-term high dose of glucocorticoids, with poor response to bisphosphonates, he was initiated anabolic therapy, teriparatide, for 24 months.

After 6 months, his disease activity and treatment remained unchanged, DXA revealed positive response, with increased BMD spine L1-L4: 0.902 g/cm2, Z score=-2,6 DS; and increased bone formation markers osteocalcin =40 ng/ml

Conclusion: Although bisphosphonates are a good option in glucocorticoid induced osteoporosis, in some cases teriparatide can lead to better outcomes. Continuous follow up in selected cases is necessary.

ID 97 Curcumin and EGCG Co-Treatment Has Both Cytotoxic and Cytoprotective Effects in A431 Cancer Cell Line

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Objective: Epigallocatechin gallate (EGCG) and curcumin are dietary polyphenols well known as anticancer agents. We investigated the potential synergic effect of curcumin and EGCG in the hypertriploid human epidermoid carcinoma cell line, A-431. Several concentrations of curcumin and EGCG (0-100 μM) were applied in order to investigate the effect of curcumin and EGCG on colony formation, viability, mitochondrial membrane depolarization and formation of reactive oxygen species (ROS) in A-431 cell line.

Materials and methods: To assess the beneficial role of combined treatment between EGCG and curcumin in A-431 cell line we used flow cytometry technique to analyze mitochondrial membrane potential ($\Delta\Psi$m), intracellular reactive oxygen species (ROS) and viability (using JC-1, Carboxy-H2DCFDA and propidium iodide fluorophores, respectively). The clonogenic assay method was used to determine the capacity of tumour cells to form colonies after co-administration of curcumin and EGCG. Cell viability was determined by WST-1 assay using the Infinite 200 PRO microplate reader.

Results: The clonogenic survival rate was inhibited after concentrations higher than 0.5 μM EGCG in the presence of 5 μM curcumin compared with untreated cells ($p<0.05$). The collapse of $\Delta\Psi$m was observed after co-administration of curcumin and EGCG, with a curcumin EC50 value of 23.4 μM. Compared to 25 μM EGCG alone, 25 μM curcumin induced $\Delta\Psi$m collapse in about half the cell population but the addition of up to 50μM EGCG did not significantly increase this proportion.

Moreover, EGCG scavenged ROS produced by 25 μM curcumin with an EC50 of 44.34 μm EGCG. When combined, concentrations of EGCG and curcumin lower than 25 μM increased proliferation/viability but 50 μM curcumin led to near complete proliferation/viability inhibition.

Conclusion: Curcumin and EGCG combinations may exert cytotoxic as well as cytoprotective effects on A-431 cancer cells depending on the concentrations of each individual compound and trait assayed.

ID 98 IL-1β in Patients with Allergic Conjunctivitis

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Objective: Allergic eye disease principally affects the conjunctiva. According to the type of sensitization allergic conjunctivitis (AC) could be classified in seasonal (SAC) and perennial (PAC). IL1β, IL-6 and IL-10 are cytokines involved in inflammatory process which is common to AC and allergic rhinitis known to share common pathogenic mechanisms. This study aims to investigate the association between mentioned cytokines and AC.

Methods: This study included 23 patients with AC and 39 healthy controls (HC) matched for age and sex. All the subjects were evaluated by a specialist allergist for allergic sensitization using skin prick test method following European Academy of Allergy and Clinical Immunology recommendations for indoor and outdoor allergens (dust mites, cockroaches, animal dander, molds and pollens: grasses, weeds and trees). All the subjects were evaluated by a specialist ophthalmologist clinically and functionally (best corrected visual acuity, central visual field). Interleukins were assesed in serum samples using LUMINEX technique. SPSS for Windows 20.0 was used for statistical analyses. A p-value less than 0.05 was considered statistically significant.

Results: AC patients showed significant higher levels of IL-1β than HC (p=0.019; Mann-Whitney test). It was found that IL-1β is associated with PAC (rho=-0.245, p=0.045). The patients with polysensitization showed higher levels of IL-1β than those with monosensitization (rho=-0.293, p=0.023). Also, it was found that patients with a higher degree of sensitization (related to the diameter of the skin prick test) showed higher levels of IL-1β (rho=-0.259, p=0.046). It was found no differences between the levels of IL-6 and IL-10 between AC patients and HC. Also, it was found no evidence that the levels of these cytokines are associated with the degree of allergic sensitization.

Conclusion: AC patients showed higher levels of IL-1β than HC. The higher levels of IL-1β seems to be associated with the degree of allergic sensitization.

ID 101 The Therapeutic Conduct (Strategies) in Patients with Crohn's Disease that Have Not Been Considered Well Responders to the First Lines of Treatment

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Objective: Treatment options in patients with Crohn's disease (C.D.) that cannot be treated with the conventional course of treatment.

Material and Methods: The patient, 15- year- old, male, with a history of neuroendocrinal appendiceal tumor (surgically removed and with a favorable outcome) was diagnosed with C.D.in 2015(when he presented with multiple bloody stools, diarrhea, intense stomach pain, fatigue) underwent the first line of treatment with aminosalicylates, then started the second line of treatment associating corticosteroid therapy ,followed by the third line represented by immunosuppressive drugs (with gastrointestinal/allergic intolerance) without any substantial improvement. Thus, biological theraphy was taken into consideration. The first therapeutical option was Adalimubab (Humira) that we began administering at the beginning of 2016 and later stopped after a few months due to persistent headaches (considered at the time to be side effects of the drug).Due to the prolonged symptomatology the pacient was later put on the Tnf-alfa inhibitor called Infliximab(Remicade) in 2018 and initially showed major signs of improvement but, the signs and symptoms relapsed months later, also the latter administration of Infliximab resulted in an anafilactic-like reaction with increased blood pressure, irritative cough and throat constriction sensation. A few months later we noted an increased level of Anti-Infliximab Antibody.

Results: The remaining treatment possibilities reside in a reorientation towards Adalimumab, that might have proven to be discomforting for the pacient but hasn't proved to have life threatening repercussions, with good clinical and biological evolution.

Conclusion: When alternating between different lines of treatment a physician must comprehend that every patient is an unique individual and represents an unique illness on its own and therefore will benefit of its own course of treatment and when judging which path would be the right one to take on the road to recovery one must always weigh the risks and the benefits of each decision made.

ID 103 Low Risk Does Not Mean No Risk: Papillary Carcinoma in an Autonomous Thyroid Nodule

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Background: Typically, thyroid cancers are non-functional, only a small percentage of follicular carcinoma are autonomous and associated with hyperthyroidism. In most of the cases there are small foci of thyroid cancer in Grave's disease, toxic goiter or toxic thyroid adenoma. We present a case of an autonomous papillary carcinoma.

Case report: A 30-year-old male was evaluated in our service for a recently diagnosed thyroid macronodule. He had no significant personal medical history or familial antecedents.

Clinically he had a BP of 120/70mmHg, a pulse of 100 bpm, sweaty skin, but normal thyroid at palpation.

Biologically: a TSH of 0.656, a fT4 of 1.92, negative ATPO and anti-thyroglobulin antibodies and calcitonin.

The neck ultrasound revealed a hypoechoic thyroid gland with a left thyroid isoechoic solid nodule of 2/1.67 cm, taller than wide, but well delimited and with perivascular vascularization.

The thyroid scintigraphy revealed a hot left nodule with the rest of the thyroid gland non-functional.

We started treatment with Methimazole with starting daily doses of 10 mg and Propranolole 20 reducing the doses after the normalization of thyroid hormones and pulse.

We referred the patient to surgery for lobectomy and the HP report revealed a papillary carcinoma 15mm in dimensions with areas of nodular tissue hyperplasia and foci of lymphocytic thyroiditis.

Diagnostic: Papillary carcinoma T1b in Plummer's toxic adenoma.

Discussion: Classically it is believed that autonomous thyroid adenomas are benign and FNAB was not recommended in these cases but recent literature mention 10% of thyroid carcinomas associated with hyperthyroidism and as much as 29% in Plummer's adenoma. Also hyperthyroidism is associated with more aggressive cancers so we should maintain the FNAB indications no matter the scintigraphy result.

ID 106 A Particular Case of Depression with Multiple Comorbidities and Suicide Attempt

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Objective: We report the case of a patient with recurrent depressive disorder and multiple somatic comorbidities.

Methods: The patient went through clinical, paraclinical, psychiatric and psychological evaluations.

Results: The patient, a 65-year-old female with psychiatric history, was admitted for stabbing suicide attempt, through transfer from a Surgery Department. At the moment of admission, she presented depressed disposition, psycho-physical fatigue, anhedonia, prevalent ideation of inutility, incurability and incapacity, fragmented and poor-quality sleep. The patient had somatic comorbidities, hypoproteinemia, normocytic hypochromic anemia and hyposideremia. The psychological exam revealed traits of personality of unstable impulsive type, without cognitive deterioration. The diagnosis was established according to ICD-10: Recurrent depressive disorder, current episode severe with psychotic symptoms (F33.2). Under the psychotropic treatment, the evolution was favorable, with the remission of disposition and thought impairment.

Conclusion: The diagnoses of the patient were: Recurrent depressive disorder, current episode severe with psychotic symptoms, iron deficiency anemia and mild protein-energy malnutrition.

The particularity of the case: the depressive symptomatology could be increased by the presence of anemia prior to the suicide attempt. However, the severity of anemia can be due to the post-stabbing hemorrhage or the iron and protein deficiencies, which were probably present before the suicide attempt.

ID 112 Mortality in Different Categories of Invasive Fungal Infection

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Introduction: All invasive fungal infection (IFI) are a great burden for medical system with high mortality and morbidity. The incidence of IFI is increasing probably due to the rising number of cancer and organ transplantations (solid organ transplantation or bone marrow transplantation).

The aim: Evaluation of mortality in the group of patients with proven IFI comparing with the group of probable or possible IFI.

Methods: A retrospective observational study was performed on all the patients with determination of fungal serological markers without positive blood culture or positive cerebrospinal fluid (CSF) for a fungal pathology and all patient with positive blood culture, or positive cerebrospinal fluid (CSF) for a fungal pathology, hospitalized during January 2017 and December 2018 in 'Dr Victor Babes' Clinical Hospital of Infectious and Tropical Diseases, Bucharest. The case definition of IFI was based on the criteria formulated within the international consensus, formulated in June 2008, which defines 3 categories: proven, probable a possible IFI and unclassified infections.

Results: In the study were included a total of 67 patients. Out of them, 19 patients were included in one category of IFI probable or possible and 30 patients were diagnosed with proven IFI based on positive hemocultures and CSF cultures for fungal infection. In the first group the mortality rises at approximately 30% and in the second group at approximately 40%

Conclusion: Mortality in the both groups of IFI is high but in the group of proven IFI is higher, thus a rapid adequate treatment is critical. In the literature, the rate of blood culture positivity haemocultures is not very good and the help, in order to formulate a diagnostic, come from de serological markers for IFI.

ID 113 Factors of Non-Compliance and Control of Asthma to a Pregnant

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Objectives: Topical medical problems, such as increasing the quality of life generated great interest among researcher focused on patients with chronic diseases like asthma. The gold standard is the recognition and correction of non-compliance factors in the treatment of a patient with bronchial asthma, allergic rhinoconjunctivitis during pregnancy, disease prevention and progression reduce the costs of medical services. Allergic asthma is clinically characterized by coughing that varies in time and intensity, wheezing, dyspnea at which paraclinic modifications are associated-spirometry reveals obstructive ventilator dysfunction, with post bronchodilator reversibility SABA (Beta2Short-acting agonist).

Method: We evaluated a pregnant woman with asthma and followed asthma control. Skin prick testing at aeroallergens highlighted sensitization to dust mites. During clinical examination we found the presence of bilateral basal tolerant rales and basal spirometry revealed mild obstructive ventilator dysfunction with positive reversibility test (increase FEV1>12% and >200 ml after administration of 200-400 μg SABA). We followed the compliance by questioning the patient (ACT questionnaire), counting the therapeutic units and evaluating the therapeutic response by paraclinical investigations. It has been shown that anxiety represents a comorbidity among patients with chronic diseases.

Results: Administration of inhaled corticosteroids (Budesonide) to control asthma in the case of a pregnant woman was associated with a significantly lower risk of asthma exacerbations. An important clinical benefit has been demonstrated if adequate asthma therapy is administered and may reduce its morbidity. Discontinuation of treatment during pregnancy has been associated with exacerbation of asthma.

Conclusions: Specialized nursing has been offered to the pregnant patient with asthma, allergic rhinoconjunctivitis to control symptoms and prevent exacerbations of asthma. Cooperation between physician and patient has made an improvement in compliance with desired therapeutic results, confirming the feasibility of the method. ACTscore>20 was associated with symptom control and lack of exacerbations.

ID 115 Skin Prick Test and Anamnesis Importance in the Diagnosis of Allergic Diseases

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Objective: IgE-mediated chronic diseases are allergic asthma, allergic rhinoconjunctivitis, oral allergy syndrome, and chronic urticaria. Highlighting of oral allergy syndrome (pollen-food syndrome) for patients with respiratory allergies can prevent aggravation of symptoms and asthma control among these patients can improve the quality of life. Oral allergy syndrome is characterized by the presence of symptoms in the oropharynx after ingestion of raw fruits / vegetables in case of pollen-sensitized persons. There are similar proteins in pollen but also in raw fruits and vegetables causing allergic reactions.

Method: We accomplished a detailed anamnesis and prick skin test on aeroallergens and trophalergene for a patient with sneezing, oculo-nasal pruritus, hyperlacrimation / nasal obstruction and with a personal history of urticaria and lingual pruritus after consuming chocolate with peanuts. The result was received in about 20 minutes. Positive tests were noted by the presence of a 3mm papule with local erythema at the test site.

Results: The prick skin test at aeroallergen was positive for pollen Betulacee, Graminee, Corilaceae, Artemisia vulgaris, Ambrosia mix, Salicacea, Helianthus annuss and for the following foods cross-reacting with these allergens: carrot, hazelnuts, mixed fruits (chestnut, figs, peanuts, nuts), liliacea (garlic, red beet, onion, spinach), umbrella (carrot, fennel, parsley, celery). Prophylaxis measures for pollen exposure, avoidance of cross-reactive food consumption and specific treatment (antihistamine and nasal corticosteroid) have led to the remission of symptoms of rhinoconjunctivitis, urticaria and in order to control asthma. Asthma control was obtained after administration of Montelukast 10mg evaluated with spirometry exams and a local clinical examination (remitting sibilant rales).

Conclusions: Persons with respiratory allergies wich associate oral allergy syndrome and urticaria after consumption of raw vegetables and fruits can consume these foods in a heat-treated form and avoid cruel form.

ID 128 Chronic Maxillary Sinusitis and Platelet-Rich Plasma: a New Medical Approach

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Objective: Platelet-rich plasma (PRP) is a natural source of growth factors, which are frequently used for surgical procedures in many medical fields, particularly in oral and maxillofacial surgery, plastic surgery and sports medicine. The aim of our study is to evaluate the effects of growth factors from PRP in patients with chronic maxillary odontogenic sinusitis (CMOS).

Methods: Our pilot study included 5 patients diagnosed with CMOS, from which we collected samples of oral mucosa and stored in tubes containing phosphate buffer solution (pH 7.2). PRP was obtained from venous blood collected from each patient using MEA-PLASMA tube and centrifuged 10 minutes at 2800 rpm. Oral mucosa cells were incubated with 2mL PRP. The control samples were represented by sinus mucosa without PRP. After seven days of incubation, the samples were sonicated on ice (10 min, Bandelin Sonoplus HD2070). Cell lysate was used to determinate the following biomarkers: insulin receptor (IR), protein kinase B or serine threonine kinase (AKT) and phosphatase and tensin homology (PTEN) using an Automatic Analyzer Luminex X MAP Techonology.

Results: IR, AKT, PTEN present statistically increased levels for the oral samples treated with PRP versus control group ($p<0.005$).

Conclusion: Growth factors from PRP activate the AKT signaling pathway which reduce inflammation from maxillary sinuses by stimulating proliferation and cell growth processes. Keywords: inflammation, platelet-rich plasma, sinusitis

ID 134 Performance, Visibility, and Improvement of Research Activities from the Faculty of General Medicine, University of Medicine and Pharmacy Carol Davila

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Objective: The study aims to present the level of performance and the visibility of the scientific activity as well as means of stimulating and improving the research activities at the Faculty of General Medicine, UMF Carol Davila.

Method: Statistical analysis of the performance indicators of research activities and their evolution during the period 2017-2018.

Results: The analysis of the performance indicators for the scientific activity (articles, summaries of scientific conferences, books, patents, research projects) show an evolution of the research activities in the Faculty of General Medicine. There have been identified solutions to improve research activity and its visibility.

Conclusion: In order to improve the research activity and its visibility it is necessary to constantly analyze the evolution of the performance indicators, which is a useful and accurate instrument for establishing specifically adapted measures.

ID 146 Occupational Non-Melanoma Skin Cancer: an Under-Reported, Rising Disease

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Aim: Cases of non-melanoma skin cancer (NMSC), including basal cell carcinomas (BCC) and cutaneous squamous cell carcinoma (cSCC), are increasing in number in occupationally UV-exposed professions, such as construction workers. In 2016, there were only seven European countries which recognized cSCC and six which recognized BCC as occupational diseases, Romania not being part of these categories.

The aim of this study is to increase awareness of this issue, as well as providing specific data of NMSC's characteristics in occcupationally exposed-individuals.

Material and methods: An analytical, descriptive study was conducted in the 2nd Department of Dermatology, Colentina Clinical Hospital, including three outdoor construction workers clinically diagnosed with NMSC.

Patients underwent surgical excision of lesions with histopathological examination and answered a specific questionnaire regarding details of their occupational exposure and additional risks.

Results: All three patients were active in constructions and had no associated risk factors such as smoking, constant alcohol consumption, immunosuppresion or previous radiotherapy. No significant personal history was noted.

All patients stated a rapid evolution of their lesions, with a rapid increase in size in the last 2-3 months.

Patients had a prolonged UV exposure, ranging from 12 years to 50 years, approximately 6 days per week, without complete protective equipment. Sunscreen creams were never applied. Histopathological examination revealed a nodular BCC (invading the profound reticular dermis, without any perineural invasion), a superficial infiltrative BCC (invading the profound reticular dermis, without any perineural invasion, in association with osteoma cutis) and a G1 differentiated squamous cell carcinoma (invading the profound reticular dermis, without any lymphatic, vascular or perineural invasion).

Conclusion: NMSC is a highly prevalent health problem in our aging population and additional risk factors such as occupational solar exposure should be acknowledged and special preventive measures such be implemented at the work place.

ID 147 Psoriasis and Current Use of Standard Treatments: an Analytical, Retrospective Study

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Aim: Psoriasis vulgaris is an inflammatory, proliferative disorder with genetic predisposition, frequently associated with nail changes and arthropathy. Psychological impact of this disease is significant, patients often seeking aggressive treatments with rapid and favorable results.

In the modern era, the use of biological treatments is of choice, being highly effective for the treatment of severe cases, but not without significant risks.

The aim of out study is to evaluate the current use of standard treatments in psoriasis such as methotrexate, analyzing both the efficacy and the adverse effects encountered.

Material and methods: An analytical, retrospective study was conducted in the 2nd Department of Dermatology, Colentina Clinical Hospital. The study included 57 patients diagnosed with psoriasis in treatment with methotrexate in 2017.

Data analysis included socio-demographic data, psoriasis clinical form, number of admissions, doses of metotrexate treatment, comorbidities. The efficacy of treatment was evaluated with special evaluation forms such as PASI (Psoriasis Activity Severity Index) and DLQI (Dermatologic Life Quality Index) before and after treatment.

Results: In 2017, from 5589 patients admitted in the 2nd Department of Dermatology of Colentina Clinical Hospital, 234 were patients associating psoriasis and methotrexate treatment.

Comorbidities were seen in11% of patients: type II diabetes, arterial hypertension, dyslipidemia, obesity, megaloblastic anemia, alcoholic hepatitis and depression. Psoriathic arthropathy was present in 21% patients.

Treatment with methotrexate was conducted in doses ranging from 2,5 to 30mg per week.

Mean PASI was 13.66 pre-treatment and 5,63 post-treatment, DLQI 19,37 pre-treatment and 11,5 afterwards. No adverse effects were noted.

Conclusion: Standard therapies of psoriasis such as methotrexate, especially in association with articular lesions remain an important tool for dermatologists and rheumatologists in managing severe cases of this affliction, improving clinical aspect and quality of life, without significant adverse outcomes.

ID 149 Cystatin C Value and the Progression of Chronic Microangiopathic Complications in Patients with Type 2 Diabetes Mellitus

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Objective: The aim of study was to analyze correlations between Cystatin C (CC) value and severity of microvascular complications in patients with newly diagnosed type 2 diabetes (T2DM). In a prospective study we aimed to identify a correlation between CC value at baseline and the progression of complications after 3 years of follow-up.

Material and method: The CC level was measured by immune-turbidimetric method, performed by a quantitative determination of frozen human serum.

Results: There is a significant difference ($p < 0.001$) regarding CC value between the patients without diabetic retinopathy (DR) and those with non-proliferative early DR (DR1) (0.05 vs. 0.87 mg/l). Also, as the diabetic peripheral neuropathy (DPN) severity progresses, CC values significantly increase progressively (0.05, 0.67, respectively 0.81 mg/l, $p = 0.043$).

CC levels were significantly higher in patients for whom the degree of DR has progressed (1.04 vs. 0.05 mg/l, $p < 0.001$). There is a significant positive correlation between CC and DR progression, independent of smoker status, blood pressure, glycemia and HbA1c ($r = 0.458$, $p < 0.001$).

CC values were significantly higher in patients for whom DPN progressed (0.98 vs. 0.05 mg/l, $p < 0.001$). Progression of DPN was positively correlated with HbA1c and negatively with LDL cholesterol. CC and DPN progression correlated significant, independent of smoking, blood pressure, glycemia, HbA1c and LDL-cholesterol ($r = 0.58$, $p < 0.001$).

CC values were significantly higher in patients for whom chronic kidney disease (CKD) progressed (1.04 vs. 0.05 mg/l, $p < 0.001$). CC and CKD progression significant correlated independent of smoking, blood pressure, glycemia, HbA1c, LDL-cholesterol ($r = 0.547$, $p < 0.001$).

Conclusion: The CC level at baseline is associated with the severity of DR and DPN in newly diagnosed patients with T2DM. Our prospective study have shown that there is a positive and significant correlation between CC levels and progression of chronic microangiopathic complications, independent of known risk factors.

ID 150 The Contribution of Robot-Assisted Therapy to the Hand Functional Improvement During the Rehabilitation Program for Children with CP

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Objective: The purpose of this paper is to present the substantial contribution of robot-assisted therapy to the hand functional improvement during the rehabilitation program received by a child diagnosed with right hemiplegic spastic cerebral palsy (RHCP).

Method: The evolution of an 11-year-old male patient diagnosed with RHCP, admitted to the NTCCNR, was monitored for 2 years. The patient has been hospitalized 5 times, each time receiving 23 physical therapy sessions. Additionally, the last 2 hospitalizations had been completed by 23 robot-assisted rehabilitation sessions. The aim was to increase the range of motion (ROM), to normalize the muscle strength and to improve the upper limb coordination. The patient was assessed during each hospitalization at admission and at discharge, paying special attention to the upper limb distal extremity by monitoring the grip power, grasp and fist ROM.

Results: The quantification of the assessed parameters allowed it to be highlight the substantial contribution made by robot-assisted therapy to the improvement of the entire hand rehabilitation process. Thus, there was an improvement in the muscular strength of the grasp (tip, lateral, cylindrical, palmar, hook) and fist ROM.

Conclusion: The quantified highlighting of patient progress shown that robot-assisted therapy is an augmentation factor of the physical therapy program effectiveness, resulting in increased patient independence, active involvement in the rehabilitation program, shortening the period of social reinsertion, and visible improvement in quality of life of the patient with cerebral palsy.

Therefore, we support the importance of introducing robot-assisted therapy into the rehabilitation program alongside the classical methods of physical therapy.

ID 158 Ponderal Deficit in the Intestinal Parasitoses of the Child

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Objectives: The intestinal parasites require a different approach due to multiple etiopathogenic factors involving a personalized therapeutic behavior. The objectives of this study are to highlight the correlation between sex, origin, age, type of parasite and ponderal deficit.

Method: The retrospective study included 62 children who presented in the Ambulatory of Pediatrics between 2017-2018 of the Emergency County Clinical Hospital of Craiova and were later diagnosed with intestinal parasitosis.

Results: Epidemiological analysis indicated that from 62 patients diagnosed with intestinal parasitosis, 61.3% (38 cases) were males and 38.7% (24 cases) were females. From the total home environment, 67.7% (42 cases) were rural areas and 32.3% (20 cases) from urban areas. Depending on age, we found the predominance of parasites in the 4-6 year age groups (33.9%, 21 cases) and in the 7-16 years age groups (40.3%, 25 cases).Clinical analysis indicated the presence of ponderal deficit in 61.3% (38) of cases. The pathogenic agents identified in this study were Blastocystis hominis 17.7% (11 cases), Giardia lamblia 25.8% (16 cases), Ascaris lumbricoides 19.3%), Enterobius vermicularis 29.1% (18 cases) and polyparasitism 8.1% (5 cases).

Conclusions: The frequency of intestinal parasitoses increases directly proportional to the age coinciding with entering collectivities. Particular clinical and epidemiological aspects may contribute to appropriate therapeutic behavior to prevent ponderal deficit in intestinal parasitoses in children.

ID 162 The Evaluation of the Relationship between Interleukins and Resistance to Radiotherapy in Rectal Cancers

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The study is related to a slightly known subject of radiotherapy debated until now, that of radio-resistance, which is an important cause of therapeutic failure in rectal cancer. Studies from the specialized literature proved the link between inflammation and colorectal cancer but also which are the most important mediators of the inflammatory response which appears, both in the context of carcinogenesis of rectal cancer and that of performing radiotherapy.

Objective: To validate interleukin-6 (IL-6) and interleukin-9 (IL-9) as predictive factors for response to radiotherapy in rectal cancers.

Methods: Thirty-five patients diagnosed with rectal cancer stages II and III were enrolled in the study. All of them were submitted to neoadjuvant radiotherapy or concomitant chemoradiotherapy due to locally advanced tumor (T3 or T4) or lymph node involvement suspicion (N+). Blood samples were obtained in dynamics during treatment and both IL-6 and IL-9 levels were measured by ELISA technique.

Results: Regarding the determination of IL-6 and IL-10, the differences between median values at first and last assessment were statistically significant at a significance threshold $p < 0.001$. In case of IL-6, elevated values were associated with a high tumor burden and were decreasing until the end of radiotherapy. IL-10, known to have an anti-inflammatory role, showed elevated serum levels until the end of treatment. The mean and median values of the last IL-6 evaluation showed statistically significant differences at a maximum threshold of $p<0.05$ between treatment responders versus those with resistance. IL-10 did not have significantly different statistical parameters at a reasonable threshold.

Conclusion: The obtained results highlight that IL-6 represents an important predictor of tumor response after preoperative treatment for patients with locally advanced rectal cancer.

Acknowledgement: This work received financial support through the project entitled "CERO – Career profile: Romanian Researcher", grant number POSDRU/159/1.5/S/135760.

ID 163 Clinical and Progressive Spectrum of Measles Cases Admitted to Dr. V. Babes Infectious and Tropical Diseases Clinical Hospital Bucharest

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Objectives: The objectives were to identify demographic and epidemiologic characteristics, the clinical evolutionary to assess the frequency of complications of patients with measles in an infectious disease hospital.

Method: We performed a retrospective study, on a group of patients with measles, admitted to Dr. Victor Babes Infectious and Tropical Diseases Clinical Hospital, from Bucharest, between January 2016 and December 2018. Epidemiological data, clinical characteristics and the results of the biological samples were obtained from the patient's medical records.

Results: Out of the 1115 patients, 579 (51.9%) were males. Most of them (40%) were children between 1 and 4 year-old (33.72%), while 262 (23.49%) were infants. Almost a third of the patients (29.50%) had familial contact with a measles case. The vaccination history was unknown in 427 cases; 634 patients were unvaccinated

Almost all of them developed viral complications, 864 (77.48%) being diagnosed with interstitial pneumonia. There was no case complicated with encephalitis. Bacterial pneumonia was diagnosed in 14.52% patients out of which 38.27% were also associated with respiratory failure with favorable evolution under treatment, requiring oxygen therapy, corticotherapy and broad spectrum antibiotics. 8 patients required transfer to the pediatric intensive care unit for respiratory support and 2 died.

Other complications were: laryngitis 76 (128.11.47%), otitis 143 (12.82% of the cases). Also, 675 (60.53%) of the patients were diagnosed with enterocolitis. Liver cytolysis was present in 216 patients (19.37%).

Conclusion: The number of patients diagnosed with measles in 2017 and 2018 registered an alarming increase, especially in children under 4 year-old, with a high number of complications.

It is mandatory to apply the vaccination program to ensure an optimal vaccine coverage, useful both in stopping the current outbreak and in preventing future outbreaks.

ID 165 The Influence of Glycosylated Hemoglobin on Retinal Vascular Caliber in Patients with Diabetes Mellitus

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Introduction: Microvascular complications are well described in the pathophysiology of diabetes mellitus. Retinal vessels, as a part of central circulation system, are small blood vessels that can be studied in detail by direct viewing in vivo, noninvasively and accessible.

Purpose: To measure retinal vessel caliber using optical coherence tomography (OCT) and to describe the influence of glycosylated hemoglobin on retinal vascular caliber in patients with diabetes mellitus.

Methods: The study included 45 patients with diabetes, men and women, with mean age of 62.37 years (range 35-75). After pupil dilation, the width of retinal vessel was measured with OCT; glycosylated hemoglobin (HbA1c) was also measured. Associations between HbA1c and arteriolar and venular caliber were assessed with linear regression models, in subjects with diabetes.

Results: In diabetic patients retinal vascular caliber is linear and positive corresponding to the value of HbA1c. Patients with high glycemic values (HbA1c $\geq$8%) have both arteriolar and venular caliber significantly increased compared to patients with HbA1c $<$7%, (p value $<$0.05).

Conclusion: Measuring retinal vascular caliber with OCT may be an alternative method to the fundus imaging. OCT data may by an attractive approach for clinical studies; and retinal vascular width can be correlated with glycosylated hemoglobin, an important marker used to evaluate the efficacy of treatment in diabetic patients.

ID 166 Hyper-Hashi-Lada

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Objective: Hashimoto's thyroiditis (incidence: 0.5-5%) is an autoimmune disorder in which antibodies directed against the thyroid gland lead to chronic inflammation. Latent autoimmune diabetes of the adult (LADA) is an autoimmune disorder (10% of all diabetes) defined by adult-onset and the presence of diabetes associated autoantibodies. The aim of this case report is to highlight the autoimmune association of these two disorders. .

Methods: We present the case of a 51-year-old female patient with this exact pathology: Hashimoto's disease with hyperthyroidism and LADA. The first diagnosis was decided early on, when the 36-year-old patient presented with typical hyperthyroidism symptoms (weight loss, palpitations, nervousness, restlessness) alongside a suppressed TSH-level and excessive FT4, with an increase seric value of anti-thyroglobulin and anti-TSH antibodies, thyroidperoxidase antibodies being in the normal range.

Results: The anti-thyroid therapy (Thyamazole) was favorable for short periods, but it was followed by frequent relapses of hyperthyroidism – with no signs of hyperglycemia. Despite the recommendation guidelines, the patient refused a radical treatment of her disease (radioiodine ablation or surgical removal of the gland). Eight years later, during one of her relapses, the patient was found with a severe hyperglycemia; LADA was suspected due to the association of an autoimmune thyroid disorder with the adult-onset of hyperglycemia in a normoponderal patient. The LADA diagnosis was confirmed by a decrease in the C-peptide level and an increase in GAD-ab seric value (low level of insulin production). Basal-bolus insulin therapy soon followed with a favorable outcome; however, hyperthyroidism relapses demand a flexible insulin regimen.

Conclusion: The particularity of this case is: the autoimmune disorders' association; the unusual hyperthyroidism in Hashimoto's thyroiditis; the the tight control of the diabetes, with rare hypoglycemia episodes and no acute / chronic hyperglycemia complications, the favorable evolution under anti-thyroid therapy of the hyperthyroidism, despite the patient's refusal of a more radical choice.

ID 167 Radiation Therapy and Induced Cardiac Toxicity in Breast Cancer

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Objective: The aim of this study was to evaluate the main cardiovascular side effects of oncological treatment for breast cancer, mainly radiotherapy with the use of new treatment techniques.

Method: We conducted a prospective study on 78 female patients diagnosed and hospitalized in our department with stage I-III breast cancer, over the course of 60 months. All the patients underwent external beam radiation at doses between 45 and 50.4 Gy with conventional fractionation. The cardiac function was closely monitored at the beginning, during and after oncological treatment and cardiac events that occurred were analyzed. We contoured the heart structures as following: left ventricle, right coronary artery, left coronary artery with the branches: circumflex artery and left anterior descending artery.

Results: Mean age at the diagnosis was 60.5 years. Survival of the patients in the study over 60 months was 88.5%. The risk of cardiac events following radiotherapy in patients treated for left side breast cancer is over 1.5 times greater than for those treated for right side breast cancer. The median dose received by the heart was 5.88 Gy following 3D conformational technique. The most important cardiac side effects included the decrease of left ventricular ejection fraction, electrocardiographic abnormalities and arrhythmias.

Conclusion: Patients diagnosed with breast cancer have a high survival rate at 5 years, and the main adverse effects recorded were at the cardiac level, especially in patients who had presented cardiovascular risk factors in the past. Regular cardiac controls are required in patients diagnosed with left breast cancer throughout their life.

ID 171 The Essential of Radio-Imaging Methods in the Diagnosis and Follow-up of Cystic Renal Lesions in Children

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Objective: Cystic renal pathology in children is considered benign including unique renal cyst, multicystic dysplastic kidney and polycystic kidney disease but we must consider tumoral lesions like multilocular cystic nephroma or malignant lesions like nephroblastoma. This study objective is to review the imaging methods used in cystic pathology in children taking into account that X- rays methods must be avoided in this type of pathology.

Materials and methods: We made a retrospective study during May 2016 and May 2019 using as key point „renal cyst". The children have been diagnosed in our department with cystic lesions. The radio-imaging methods used were ultrasound, intravenous urography, CT-urography and MRU.

Results: We found 9 cases of unique renal cyst, 17 cases of multicystic dysplastic kidney, 14 cases of polycystic kidney disease, one possible medullary cystic disease, two cases of cystic lesions in tuberous sclerosis, one case of multilocular cystic nephroma and no case of cystic nephroblastoma. In all cases the ultrasound is the first imaging modality, in most of the cases, US is sufficient. However, in uncertain cases, we need cross-sectional imaging to diagnose tumoral lesion with cystic components. Computed Tomography represent the main imaging method (even if is the most irradiating) because can differentiate parapelvic renal cysts from hydronephrosis or multicystic dysplastic kidney from hypoplasia. An optimized CT-urography protocol can replace the classic urography. MR urography is helpful in patients with cystic lesions and associated abnormalities, MR urography have the advantage of multiplanar acquisitions and lack of X-rays exposure.

Conclusion: Even if cystic lesions might be considered a simple pathology, imaging investigation is essential in diagnosis. US remain the main imaging method for diagnosis and follow-up. The other imaging methods are complementary to US, having limited indication, especially for excluding tumoral pathology.

ID 172 Collateral Circulation and Its Predictive Role in Myocardial Performance Recovery Among Hospital STEMI Patients: Myth or Reality?

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Aims: Mortality among patients with acute ST-elevation miocardial infarction (STEMI) remains high. Coronary collateral circulation(CC) is known to reduce miocardial mass loss and improve overall survival. However, the role of CC in left ventricle ejection fration (LVEF) recovery post-angioplasty in the acute setting remains unclear. We sought to determine the predictive role of CC (defined by RENTROP score) in recovery of LV function after PCI.

Methods: Between January 2018 and April 2018, we prospectivetly analized 126 patients with STEMI. Including criteria followed the fourth definition of miocardial infarction. Electrocardiography (ECG) and transthoracic ecocardiography (TTE) were used to asses ischemic severity (ST segments total sum) and LVEF changes before and 48 hours post PCI. RENTROP score was assesed by coronary angiography. Primary PCI was performed in 80.16% patients, 65.1% of them having the culprit vessel completely occluded (TIMI flow=0).

Results: Half of the patients with TIMI flow 0 had a RENTROP score of 0 (no CC), the rest had CC with RENTROP score 1=10.32%, RENTROP score 2=14.29%, RENTROP score 3=7.14%.

In a multivariate linear regression analysis, RENTROP score was correlated with the total sum of ST elevation segments prior to PCI (p=0.003, R2=0.059) and LVEF assesed before revascularization (p=0.0001, R2=0.115). The RENTROP score was positively correlated with a poor LVEF recovery (less than 5%) post PCI (p=0.001, R2=0.075).

Conclusion: Patients with CC had lower sum of ST segments at admission and higher LVEF prior to PCI. Presence of CC was a predictor of poor LVEF recovery after PCI.

ID 173 Markers of Inflammation in Patients with Benign HPV-Associated Lesions

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Introduction: Inflammation is part of the first-line defense of the human body against pathogenic agents. However, the inflammation is a double edge sword. This process seems to play an important role in the dysplastic lesions of the cervix, being a co-factor in carcinogenesis. We have investigated whether the inflammation is involved in benign lesions associated with HPV infection.

Material and method: We have conducted a prospective study on 35 patients with warts and 28 healthy subjects.

We have measured the blood levels of fibrinogen (mg/dl), high sensitivity C reactive protein – hsCRP (mg/dl), interleukin 6 – IL6 (pg/ml) and the erythrocyte sedimentation rate – ESR (mm/h).

Results: Higher levels of inflammation markers (fibrinogen, IL6 and ESR) were detected in patients with warts compared to the control group but with no statistical significance (p> 0.05). The difference was statistically significant in the case of hsCRP (p <0.05).

Conclusion: In conclusion, the results have not revealed a systemic inflammatory process in patients with benign HPV-associated lesions, with the exception of elevated levels of hsCRP.

ID 174 Serum Levels of Reactive Carbonyl Species in Lichen Planus Patients

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Introduction: Skin is the largest organ of the human body that is exposed to lipoperoxidation. In the skin there are high amounts of polyunsaturated fatty acids and iron which both enhance the oxidative processes. On the other hand, the antioxidant defense mechanisms and systems of inactivation of hyperreactive lipoperoxides formed in vivo are well represented. The occurrence of abnormalities in the formation of lipoperoxides and / or in the activity of endogenous antioxidant systems may be involved in the pathology of lichen planus (LP).

Material and method: To investigate the serum levels of reactive carbonyl species generated from lipids, 4-hydroxynonenal (4-HNE, ELISA method) and thiobarbituric acid reactive substances (TBARS, photometric method) were used. We have enrolled 31 patients diagnosed with LP and 26 healthy subjects.

Results: The serum levels of TBARS (μmol / l serum) and 4-HNE (μg/ml) were statistically significantly higher in LP patients compared to controls ($p<0.05$). The ratio between 4-HNE and TBARS was 1.84 in LP patients.

Conclusion: Our results showed increased lipoperoxidation in LP patients. Identifying specific pathways for metabolic regulation of the balance between lipoperoxide formation and inactivation in the skin would be useful for formulating therapeutic interventions to prevent the onset or progression of LP.

ID 176 Treatment of Diabetes Mellitus with New Antidiabetics

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Objective: ADA-EASD 2018 consensus recommends SGLT2 inhibitors (iSGLT2) and GLP-1 receptor agonists (GLP-1 Ra) as first line therapy options in glycaemic control and in prevention of diabetes mellitus (DM) complications. We aimed to evaluate the insulin need in patients with type 2 DM which received iSGLT2 and GLP-1 Ra.

Material and Methods: 114 inpatients from National Institute of Diabetes Mellitus, Nutrition and Metabolic Diseases" Professor Doctor N. C. Paulescu" with signed informed consent were included in the study. They were divided in two groups. The group with GLP-1 Ra (67.54%) had a mean HbA1c of 9.6%±1.98%, while the group with iSGLT2 (32.46%) had a mean HbA1c of 8.5%±1.2%.

Results: The insulin need in patients with iSGLT2 treatment was of 0.1 UI/kgc while the insulin need in patients with treated with GLP-1 Ra was of 0.192 UI/kgc, $p=0.007$.

Conclusion: The new antidiabetic treatments decrease the need of insulin for patients, but, furthermore, there are consistent differences in between the classes.

ID 180 Malaria Cases in Dr. Victor Babes Clinical Hospital for Infectious and Tropical Diseases from 2015 to 2018

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Background: Malaria is caused by the four Plasmodium species: falciparum, vivax, ovale, malariae and it is transmitted by the female Anopheles mosquito.

It is considered one of the biggest health problems worldwide, causing 300-500 million new cases and about 1 million deaths annually (eee.ecdc.europe.eu). The disease is more common in Sub-Saharan Africa, Asia and Central and South America.

Objective: Malaria is the most common parasitic import pathology in Romania and also the tropical disease with the greatest morbidity. Our aim is to describe the cases of the Clinical Hospital for Infectious and Tropical Diseases „Dr. Victor Babes".

Material and methods: This is a retrospective study of malaria cases diagnosed in our hospital from 2015 to 2018. We used data from medical records.

Results: 66 patients were admitted, with an average of 6 days hospitalization. Most of them have had recent history of travel in Africa (95%) and much less in Asia (5%), with a mean duration of 376 days.

Only 6% of them received complete or partial specific prophylaxis before and during the trip and 40% had a history of malaria.

The main symptoms were fever, chills and headache, and most of the patients presented splenomegaly, hepatomegaly and jaundice.

The diagnosis was established by parasitological examination of the peripheral blood.

Of the possible complications, we investigated renal failure, severe hypoglycaemia, severe anemia and hemorrhagic syndrome.

In terms of antiparasitic treatment, it was different depending on the species and the infection's severity. The mean duration until the blood smear was free of plasmodium bodies after the initiation if treatment was 3 days.

All patients had favorable outcome.

Conclusion: Although symptomatology is not specific, the history of travel in tropical areas is an important clue for diagnosis. Delay of specific treatment increases the risk of complications and death.

ID 181 The Impact of Weight and Microvascular Complications on the Life Quality of Type 2 Diabetes Patients

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Objective: The purpose of this paper was to identify the most important factors influencing the quality of life of patients with type 2 diabetes (T2DM).

Method: We conducted a cross-sectional study of 129 patients with T2DM of which 55% (n = 71) female and 45% male (n = 58), mean age 63.57±9.52 years, the evolution of DM 11.13±7.72 years, mean weight 87.26±21.07 kg, mean BMI 32.1±6.97 (kg / m2) and mean abdominal circumference 110.42±17.11 cm. The impact of weight and microvascular and macrovascular complications on the quality of life of T2DM patients was followed using the SF36 questionnaire. Data were processed statistically using MS Excel, IBM SPSS and analyzed using test 2, the T-student test for independent variables and ANOVA.

Results: Based on statistical analysis, statistically significant correlations were found between all parameters analyzed using the SF36 questionnaire and microvascular complications - peripheral diabetic polyneuropathy and chronic kidney disease. Body Mass Index (BMI) correlated with physical functioning scale, energy scale, pain and overall general health status, while peripheral arterial disease (PAD) correlated with the physical functioning scale.

Conclusion: Controlling body weight and preventing microvascular complications: PNP and CKD have a high priority in maintaining the quality of life of T2DM patients.

ID 182 Thiol/Disulfide Homeostasis in Patients with Chronic Urticarial

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Introduction: The etiopathogenic mechanisms involved in urticaria remain incompletely elucidated and include the interplay of immunity, inflammation, oxidative stress and neuroendocrine factors. We have evaluated thiol/disulfide homeostasis in patients with spontaneous chronic urticaria with unknown trigger factors.

Method: We have measured the levels of native thiol (NT), total thiol (TT) and disulfide (DS) in the patient serum by spectrophotometric method at 412 nm and we have determined NT / TT, DS / NT and DS / TT ratios in 32 patients with spontaneous chronic urticaria, in the active phase and in the remission phase of the disease.

Results: The serum levels of NT (μmol / L) and TT (μmol / L) were lower in the active phase of urticaria compared to the inactive phase. In contrast, the DS levels (μmol / L) were considerably higher in the active phase compared to the remission phase. The values of NT / TT ratio did not differ, however the values of DS / NT and DS / TT ratios were significantly different between the two analyzed phases of chronic urticaria.

Conclusion: Thiol deficiency and increased levels of disulfide determined in the active phase compared to the remission phase of spontaneous chronic urticaria revealed that thiol oxidation is an early event in the pathogenesis of the disease. These results suggest that thiol-disulfide homeostasis is involved in the onset and progression of chronic urticaria.

ID 183 Train the Future Trainers in the Fight Against Antimicrobial Resistance

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Objective: Antimicrobial resistance is one of the most important rising public health problems. This study aims to evaluate the level of knowledge regarding the correct use of antimicrobials of the future healthcare workers. Their level of knowledge and attitudes in the use of antimicrobials of the students from medical nurses faculty may be an important factor in influencing the population behavior.

Methods: Between January and April 2018, we performed a cross-sectional study and applied a structured survey to the students from the Medical Nurses Faculty, from first to last year. The questionnaire included questions regarding general data of the participant, their knowledge concerning the correct use of antimicrobials, the antibiotic resistance and their behavior. An extra section being available for students with children.

Results: We included the students from first to last year of faculty. The median age of the students was 21 years-old. Almost half of the first year students knew that antibiotics work against bacterial infections, while from the last year more than half (63.33%) of the students responded correctly. Concerning their behavior, the use of antibiotics without medical prescription decreased from first to last year of faculty. 58.57% of the first year faculty students evaluated the antimicrobials as efficient for flu, while a third of the last year medical students answered affirmative to this question.

Conclusion: Medical nurses have an important role in the general medical education of the patients. One of the first steps is evaluating their own level of knowledge regarding the correct use of antimicrobials, in order to be able to ensure the transmission of correct information to patients.

In conclusion, the medical nurses students enhance their knowledge from first to last year and modify their behavior, but improvement is still needed.

ID 185 Challenging Diagnosis and Treatment of Factor IX Deficiency

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Objective: The objective of this case report is to prove the importance and the complexity of clinical strategy regarding an ambiguous diagnosis of coagulation disorder in an infant who needed surgical therapy for scaphocephaly.

Methods: This case report was based on a close clinical and coagulation monitoring of a singular male patient diagnosed with scaphocephaly and factor IX deficiency starting from 3 months of age to 8 months of age. Routine investigations were done before surgery, showing an initial low plasmatic level of FIX (33%). This situation raised the suspicion of either physiologically decreased plasmatic concentration of F IX or mild hemophilia B. The genetic test did not confirm the presence of the most common F IX gene mutations. During the 5 months of follow-up period, unexplained fluctuations of F IX occurred, which made the possible evolution more unpredictable. After the administration of a single intravenous dose of F IX concentrate in order to increase the plasmatic level by 7-8%, the laboratory results revealed also an abnormal high FIX value (138%). The surgical procedure was postponed until normal levels of FIX were achieved. FIX increased without any further treatment.

Results: As a result of physiological normalization of FIX plasma level, the patient underwent safety neurosurgical procedure without factor IX replacement therapy or any complications due to the assumed underlying hemophilia B.

Conclusion: The atypical coagulation status of the patient arisen many clinical suspicions and the suitable strategy treatment for this case was unclear for several months. The urgency of the neurosurgical intervention made the therapeutic decisions difficult to take from the early beginning because the hematological diagnosis was not confirmed. The various forms of physiological aspects of infants, that can cause several possibilities of misdiagnosis, should not be overlooked.

ID 186 Not Your Classical Eosinophilic Esophagitis

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Introduction: Eosinophilic esophagitis is a chronic inflammatory disorder characterized by eosinophil-predominant inflammation and esophageal dysfunction. The most common triggers of eosinophilic esophagitis are food, allergens or acid reflux. The challenging part of this disease is the etiological diagnosis and therapy to prevent the risk of complications such as dysphagia, esophageal stricture, and risk of food impaction.

Case presentation: A 44-year-old patient is hospitalized for epigastric pain, heartburn, and one minor episode of dysphagia.

Clinical examination reveals no change in bowel habits, absence of nausea or vomiting, no food impaction, no anorexia and no weight loss.

Biologically, there is no evidence of anemia, hepatocitolysis or inflammatory syndrome. Also, no sign of peripheral eosinophilia.

Upper GI endoscopy reveals longitudinal and transverse esophageal furrows, a highly suggestive finding for eosinophilic esophagitis (EoE). Multiple esophageal biopsies are obtained. Rest of the examined gastric mucosa bears no pathological findings. Routine biopsy reveals Helicobacter pylori infection.

Histopathological examination results are suggestive of esophagitis with >30 eosinophiles/HPF.

Management and results: At this point, the histopathological examination confirms the diagnosis of EoE and exclusion diet is commenced. Also, antibiotic therapy for Helicobacter pylori is prescribed.

At the 5 month check-up, following the elimination diet (no milk, eggs, nuts, wheat, soy, nuts, seafood or shellfish) the patient's evolution is favorable with no epigastric pain, no heartburn, and no episodes of dysphagia.

Conclusion: What seems to be a classical presentation of EoE, this case proves to be particular.

One of the case's peculiarities is the scarcity of the clinical manifestations in a blatant endoscopically and histologically diagnosed EoE. Even-though one of the key clinical features of EoE is food impaction, this was never an issue with our patient. Moreover, another cardinal symptom in EoE - dysphagia - was regarded only as an isolated mild episode.

Also, are yet to determine if the patient's complains (epigastric pain, heartburn) were alleviate by the Helicobacter pylori treatment or the elimination diet for the EoE.

ID 189 The Experience of Romanian Awareness and Screenings Campaigns for Obstructive Airway Diseases – World Asthma and COPD Days in the Last 3 Years

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Background: On World Asthma and COPD Days, Romanian Society of Pneumology (SRP) organized awareness campaigns consisting of press conference, radio campaign, dedicated website, free testing (spirometry) for general public.

The aims of the study were: To identify subjects with airflow limitation, to assess the relationships between the severity of symptoms and spirometry values.

To provide information regarding risk factors and spread awareness about obstructive disease.

Method and materials: A retrospective cohort study using spirometry and questionnaire tests was performed in the last 3 years. The questionnaire contains questions and addresses different issues like possible suggestive symptoms, risk factors, previous lung function tests, history of exacerbations, existence of any inhalatory therapy. Statistical analysis has been done using Microsoft Office Excel 2007.

Results: A total of 2155 persons with mean age=58.7±15.8 years were screened by spirometry as follows: 36.7% (792) in 2016, 30.2% (650) in 2017 and 33.1% (713) in 2018. Males represented 55.2% (1188), 49.7%(1070) had smoking history (mean PY=20.3±17.4) and 65% (1401) had respiratory symptoms: 32.6%(704)-dyspnea, 43.6%(939)-cough, 24.3% (523)-chest tightness and 21.8%(470)-wheezing.

Although 45.7% (985) were symptomatic with normal spirometry, lung function impairment was detected in 26.6% (573) cases with mean FEV1=66.2±13.8%. Questionnaire analysis revealed that known diagnosis was found in 18.4% (398/2155) cases and 24.6% (98/398) of them had performed spirometry in the last 6 months. Asthma or COPD was found in 65.5% (261/398) of them and just 66.3% (173) had actually treated their disease.

Disease severity: 65.8%(1419/2155) cases had at least an exacerbation / year, of which 7.7% (109/1419) had address to the emergency room in the last year due to the worsening of the pulmonary symptoms and almost 2%(29/1419) of them had required hospitalization.

Conclusion: These awareness campaigns based on case findings are useful for detecting new cases, but also for already diagnosed cases, who were not followed up properly, regarding treatment or assessing disease control.

ID 193 Adalimumab Versus Methotrexate in Psoriatic Patients

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Objective: Psoriasis is a chronic, immune mediated skin disease affecting approximately 2% of the population. Methotrexate is an immunosuppressant which has been long used for the treatment of moderate to severe psoriasis. However, it is associated with important adverse events. Adalimumab is a fully human anti-tumor necrosis factor alpha monoclonal antibody which is recommended for patients with moderate to severe psoriasis who do not respond to or do not tolerate systemic conventional treatment with methotrexate. The aim of this study was to compare the efficacy of adalimumab to that of methotrexate in patients with psoriasis.

Methods: This was a retrospective study conducted in two Dermatology Departments in Bucharest, Romania, on patients who started systemic treatment with adalimumab or methotrexate during January 2012-December 2016. The severity of the disease was measured with the Psoriasis Area and Severity Index (PASI). To analyze severity, we compared the proportion of patients achieving a reduction of at least 75% (PASI75), respectively 90% (PASI90) of the PASI and the minimum time required to obtain these reductions.

Results: 62 patients receiving methotrexate and 110 patients receiving adalimumab were included. The medium PASI decreased from 21.15 at baseline to 1.28 after 12 months of treatment with adalimumab and from 19.53 at baseline to 3.44 after 12 months of treatment with methotrexate. PASI75 was obtained after 4.99 months of treatment with adalimumab and after 7.24 months of treatment with methotrexate, adalimumab being 1.76 times more efficient in improving disease severity by 75% than methotrexate ($p=0.002$). PASI90 was obtained after 8.07 months of treatment with adalimumab and 10.24 months of treatment with methotrexate, adalimumab being 2.67 times more effective than methotrexate in improving disease severity by 90% ($p<0.001$).

Conclusion: Adalimumab is superior to methotrexate in decreasing disease severity by 75% and 90%.

ID 194 D-penicillamine and Trientine in Wilson Disease – a Comparison between Treatment Options

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Introduction: Copper-chelating agents used in Wilson disease (WD) include D-Penicillamine and Trientine. The former has been traditionally used as first-line therapy, however there are no controlled trials comparing the two.

Objective: To assess the benefits and drawbacks of D-Penicillamine and Trientine in WD.

Material and methods: Retrospective study at the Gastroenterology Department of Fundeni Clinical Institute during 2012-2017. Inclusion criteria: WD diagnosis (based on the 2012 EASL practice guidelines) with neurologic follow-up through clinical examination and brain MRI (1.5 Tesla).

Results: We included 8 patients (5 females) ranging between 10-27 years-old at diagnosis. D-Penicillamine was initially used in seven and Trientine in one. Due to side-effects, two more were switched on Trientine. All 3 patients under Trientine developed neurologic worsening. The 1st, initially asymptomatic with normal brain MRI, developed mild bilateral upper limb dysmetria and specific brain MRI lesions. The 2nd developed aggravating left-sided resting and intention tremor. The 3rd, with cerebellar signs and parkinsonism, presented an initial improvement, after which neurologic worsening ensued (up to akinetic mutism). Three of the five patients on D-Penicillamine had favorable responses. The 1st, remained asymptomatic after 5-years follow-up, with unmodified brain imaging. The 2nd, with nystagmus and mild parkinsonism, became asymptomatic after 5-years follow-up. The 3rd, with nystagmus, dysarthria and specific brain MRI lesions, became asymptomatic after 5-years follow-up, with unmodified brain imaging. The 4th, with initial normal exam, developed parkinsonism after 5-years follow-up, admitting however low treatment compliance. The 5th interrupted D-Penicillamine because of thrombocytopenia and developed neurologic worsening (up to akinetic rigid syndrome). Treatment with D-Penicillamine was later resumed, however with no improvement after 1-year follow-up.

Conclusion: In our study, D-Penicillamine was associated with better responses. A clinical trial comparing the two agents is warranted in order to properly establish their efficacy in neurologic WD.

ID 202 Clinical and Epidemiological Aspects in Children with Herpes Zoster Admitted to „Dr. Victor Babes" Clinical Hospital between 2009-2018

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Objective: The assessment of the clinical-epidemiological characteristics of children diagnosed with zoster, the frequency of complications and the most common causes of immunodepression.

Method: We performed a retrospective study on a group of children diagnosed with herpes zoster, admitted to „Dr Victor Babes" Infectious and Tropical Diseases Clinical Hospital, from Bucharest, between January 2010 and December 2018.

Results: Out of the 56 patients with herpes zoster, 30 were males (53.5%). Most patients came from urban areas (66%). The most frequently involved age groups were 10-14 years (32.14%) and 5-9 years respectively (28.57%). Only 2 cases were diagnosed during infancy, where the primo-infection with varicella-zoster virus was developed during pregnancy (3rd and 4th month).

Thoracic dermatomal involvement was observed in 38 patients (67.8%), followed by involvement of facial (5), crural (5) and ophthalmic (3) dermatomal. Patients developed ocular complications (3 cases), neurological - neuralgia (4) and disseminated form (2). No significant changes were observed in the paraclinical investigations.

The cause of immunodepression was identified in 15 cases: 14 neoplasms and previously known genetic diseases and 1 case of HIV infection diagnosed with zoster.

Conclusion: Although herpes zoster occurs frequently in children with previously diagnosed neoplasms, the existence of a cause of immunodepression wasn`t identified in an important proportion. (73.21%). Patients evolution was favorable, with a small number of complications.

ID 203 Hepatitis B Virus Reactivation in a HbsAg Negative and anti-HBc Positive Patient after R-CVP Chemotherapy for Non-Hodgkin Lymphoma. Case Report

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Objective: We discuss the clinical aspects of a previously HbsAg negative and anti-HBc positive patient diagnosed with hepatitis B virus reactivation after a six-course of rituximab-containing chemotherapy regimen for non-Hodgkin lymphoma.

Materials and methods: A 68-year-old female was admitted to the Clinical Hospital for Infectious Diseases „Dr Victor Babes" Bucharest for weakness, fatigue, and subclinical jaundice. From the patient's medical history we learned that she was diagnosed with stage IV non-Hodgkin lymphoma in June 2018, and underwent a six-course of rituximab-containing chemotherapy regimen (R-CVP) until November 2018. Before the first round of chemotherapy, the patient was screened for hepatitis B surface antigen (HBsAg) for which she tested negative.

We requested the following blood panel tests: WBC, liver enzymes, direct and total bilirubin, coagulogram, anti-HCV, HbsAg, anti-HBs, anti-HBc IgM, anti-HBc (total), anti-HD, and HBV viral load.

Results: The blood tests revealed elevated transaminases (ALT=893 U/L; AST was 434 U/L); elevated direct bilirubin 0.65 mg/dl; normal PT; negative anti-HCV, positive HBsAg, negative anti-Hbc, positive total anti-HBc, negative anti-HBc IgM, negative anti-HD, and 106 HBV DNA copies/mL.

The patient was diagnosed with hepatitis B virus (HBV) reactivation, and immediate antiviral treatment was initiated.

Conclusion: Hepatitis B virus screening before starting rituximab-containing chemotherapy is highly recommended, as some of the lymphoma patients treated with rituximab may suffer from HBV reactivation. However, HbsAg testing should always be done alongside anti-HBc antibodies, as a small number of patients with chronic hepatitis B spontaneously lose the hepatitis B surface antigen. As HBV reactivation can lead to high mortality rates, guidelines recommend prophylactic antiviral therapy for HbsAg negative and anti-HBc positive patients for 12 months after the last dose of rituximab.

ID 205 New Clinical Prognostic Score in Patients with Ovarian Cancer

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Background: Ovarian cancer is the leading cause of death among all gynaecological cancers in developed countries, and because there are no screening methods and the symptoms are unspecific most of the patients presented in advanced stage. The aim of the study was to elaborate an original score to estimate the prognostic of ovarian cancer patient.

Patients and methods: One-hundred-sixty patients with stage IC-IV ovarian cancer diagnosed between 2004-2016 were included in the analysis. Based on the univariat and multivariat analysis, the most important prognostic factors included in the score were ECOG performance status ≥1, ascites, menopausal status, residual disease after surgery and thrombocytosis.

Results: After a median follow-up of 78 (range 7-216) months, median progression free survival was 36 months and median overall survival was 96 months for all stages. Median progression free survival (PFS) was statistically significant shorter in patients with ECOG 1 vs. ECOG 0 (24 vs.70 months HR=2.82) in menopausal vs. premenopausal patients (24 vs. 72 months, HR=2.32) in patients with ascites (23 vs. 36 months, HR=1.59), in patients with residual disease after surgery (15 vs. 156 months HR=6.03) and in patients with thrombocytosis (19 vs. 123 months, HR= 4,92). Median overall survival (OS) was statically shorter in patients with ECOG 1 (40 months), in menopausal women (62 months), in patients with ascites (60 vs. 108 months, HR=1.9), in patients with residual disease after surgery 38 months and in patients with thrombocytosis (36 months). PFS for patients with no poor prognostic factor was not reach, and for patient with score 1, 2, 3 and 4 median PFS was 55, 24, 20 and 12 months respectively. The difference between scores was statistically significant p=0.0001. Median OS for patients with score 0,1,2,3,4 was 120, 72, 41 and 30 months, p=0.0001. In order to validate this prognostic score, we used the ROC curve. The aria under the curve for de 0.791, p=0.0001, 95%CI 0.721-0.86 for estimated progression free survival and 0.78, p=0.0001, 95%CI 0.710-0.850 for overall survival.

Conclusion: A prognostic score consisting in modified ECOG, ascites, menopausal status, residual disease after surgery and thrombocytosis was validated in our group of ovarian cancer patients.

ID 207 An Artificial Neural Network Model of Visual Hallucinations in Dementia with Lewy Bodies

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Deep learning defined the modern standard for solving pattern recognition problems such as face recognition with near human level accuracy, or even better. It also helped neuroscientists decipher the mechanisms underlying neurocognitive functions (visual perception) and disorders. Currently, in psychiatry, there is a conceptual and experimental gap between two layers of knowledge: the clinical level, which aims to understand and quantify the symptom and syndromes and the molecular level, which aims to study the interactions between different cellular components to explain the physiopathological mechanisms of the respective pathology. Hence, how altered molecular pathways lead to a certain symptomology remains largely unresolved. We propose that computational models, aided by deep learning, can narrow this gap and provide the needed intermediate layer.

We took Dementia with Lewy Bodies (DLB) as a first step towards this goal and focused on understanding the neural basis of recurrent complex visual hallucinations (RCVH) – a core feature of DLB present in >80% of cases. We developed a multilayered neural network with both biological plausible units and learning mechanisms inspired by deep learning. The layers imitate different brain regions such as prefrontal and inferior temporal cortex. Using parameters derived from normal individuals we simulated correct object recognition and upon altering the network's parameters (to match the disease), the model produced „computational hallucinations". Computational hallucinations represent a network state, in which the network behaves as it „perceives" an object, despite that no object is presented. In other words, the model could „see" something that is not there.

In conclusion, we argue that our computational model is a candidate explanation for the RCVH in DLB, thus, providing insights into the cognitive mechanisms responsible for this syndrome. We believe that it can further lead to future research aimed to improve the diagnosis and treatment of this disease.

ID 208 Self-Acknowledged Need for Additional Information on Vaccination in Medical Doctors Attending Continuing Medical Education Activities

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Objective: To assess medical personnel's knowledge and behavior regarding vaccine administration.

Methods: A questionnaire was administered to medical doctors participating in a continuing medical education (CME) course regarding pre- and post-exposure prophylaxis of infectious diseases. The questionnaire was comprised of 7 questions that evaluated personal behaviors and general knowledge regarding post-exposure prophylaxis in healthcare work-related accident scenarios, and vaccination recommendations for medical personnel and pregnant women. The respondents were 32 medical doctors (28 females): 9 residents, 9 specialists and 14 senior specialists, from 7 regions in Romania. We present an interim descriptive analysis of the results.

Results: For the scenario of a surgeon not previously vaccinated against HBV who suffered a cut during surgery of an HBV-infected patient only one of the respondents could identify all the correct steps that should be taken (wound cleaning with water and soap, specific immunoglobulin administration, testing for HBV, HCV, HIV), and only 8/32 knew the correct HBV vaccination regimen.

In the case of vaccines recommended for medical personnel, 9/32 knew about the Tdap vaccine, 8/32 about MMRV and 31/32 about the HBV and influenza vaccines. Regarding vaccine administration in pregnant women, 11/32 correctly indicated the Tdap vaccine, and 20/32 correctly indicated the influenza vaccine as being required.

Although 31 of the 32 respondents acknowledged the importance of influenza vaccination, only 16 out of the 32 reported that they get vaccinated annually, and 18 out of 32 had been vaccinated in the current influenza season.

Most participants (21/32) identified medical litera-

ture as their primary source of information regarding vaccination.

Conclusion: The current study indicates a self-acknowledged need for additional information of medical doctors engaged in CME activities, regarding post-exposure prophylaxis, vaccination of pregnant women and medical personnel.

Acknowledgement: Project POCU/91/4/8/10812 financed by the European Social Fund POCU 2014-2020.

All authors have equal contributions.

ID 209 Rapid Influenza Detecting Test – Results from a Paediatric Emergency Hospital in Two Influenza Seasons

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Objective: Influenza is yearly a significant cause of morbidity and mortality, being considered a major public health threat.

After the 2009 pandemic, the use of rapid influenza diagnostic tests (RIDTs) in emergency departments has increased.

RIDTs are important in case management, allowing the use of influenza antivirals, the isolation of confirmed cases and the reduction of inappropriate use of antibiotics.

The purpose of our paper is to present the results obtained in testing the presence of influenza viruses using RIDTs.

Material and methods: We conducted a descriptive study based on laboratory results of RIDTs in a Pediatric Hospital from Bucharest, between 02.10.2017-29.04.2018 and 01.10.2018-28.04.2019. For rapid detection of influenza viruses antigens from nasopharyngeal samples, a qualitative lateral flow immunoassay has been used. The data were processed using Microsoft Excel and EpiInfo.

Results: During 2018-2019 season, 7228 RIDTs were performed, 1366 (19%) of them being positive: 1307 (95.7%) for influenza A, 40 (2.9%) for influenza B and 19 (1.4%) for both influenza A and B. On average, there were 45 positive tests per week (SD ± 56), with a maximum (210) in 3rd week/2019.

During 2017/2018 season 4934 RIDTs were performed, 1206 (24%) of them being positive: 909 for influenza B (75.2%), 282 (23.6%) for influenza A and 15 (1.2%) for both influenza A and B. On average, there were 40 positive tests per week (SD ± 58), with a maximum (173) in 6th week/2018.

The first positive results were recorded in 46th week/2018 and in 41st week/2017.

Conclusion: The great number of RIDTs reflects the numerous hospital presentations for acute respiratory infections (influenza-like illness) in pediatric emergency hospitals. The number of tests has increased in the current season, but the positivity rate was lower.

The weekly distribution of positive results correlates with national-level data in the respective seasons.

ID 210 Erythema Induratum of Bazin – Tuberculosis in Disguise: a Report of Three Cases

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Introduction: Cutaneous tuberculosis comprise 1–1.5% of all extra-pulmonary tuberculosis manifestations, which manifests only in 8.4–13.7% of all tuberculosis cases. It can present in many different manifestations and can at times be confusing leading to a delay in diagnosis of the disease as happened in these three cases.

Case Report

Case 1: 71-year-old female had present with erythematous skin lesions on both lower extremities, that started as a small nodule, gradually increased in size and spread around. A punch skin biopsy showed papulonecrotic tuberculid. Skin lesions were consider as a hypersensitivity response to Mycobacterium tuberculosis through a mechanism of endogenous reactivation of latent TB infection, her mother died of tuberculosis three years ago.

Case 2: 58-year-old female presented with history of subcutaneous fat necrosis requiring plastic surgical intervention on the 1/3 distal left leg in the past 1.5 years. After that she developed nodule lesions at the same level of leg. Skin biopsy revealed erythema induratum of Bazin.

Case 3: 57-year-old female presented with history of skin eruptions (macular skin lesions surrounded by persistent erythema) on both legs. As in the first case skin lesions pursue a chronic course over several years and grow by peripheral extension and central scarring. The histopathology was suggestive of erythema induratum.

Interferon Gamma Release Assay (IGRA)-reaction for M. tuberculosis infection was positive and was interpreted as a manifestation of latent TB. The anti-tuberculosis treatment was prolonged up to 1 year, the skin lesions shrunk in size, but there were still present at the end of treatment.

Discussions: A detailed history, clinical examination and multidisciplinary check-up were done to exclude another pathology such as sarcoidosis and other granulomatous/vasculitis disease.

Conclusion: Erythema Induratum of Bazin (EIB) is a granulomatous lobular panniculitis associated with tuberculosis, which diagnosis is based on skin characteristics and histopathological findings.

ID 214 Signaling Pathways in Diabetic Hyperglycemia Determining Vascular Smooth Muscle Cell Hypercontractility

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In diabetes mellitus (DM) hyperglycemia progressively leads to micro- and macrovascular dysfunctions. Vascular hypercontractility represents an important complication in DM. The emphasizing of the signaling pathways that are responsible for this alteration opens a field of efficient therapeutic resolution.

Methods: The current work exploits gathered information from literature in relation to signaling pathways that are responsible for vascular smooth muscle contractility alteration in diabetic hyperglycemia. Our original graphical representation of these pathways in a unit allowed the identification of hubs that allow the development of rational therapeutic strategies for several vascular complications in diabetes.

Results: Diabetic hyperglycemia increases vascular contractility (even independently from endothelial changes) contributing to cardiovascular complications, including hypertension. The increase in the activity of a pool of voltage gated calcium channels Cav1.2, LTCC, by PKA phosphorylation of Ser1928 potentiates Ca2+ influx triggering contraction. Usually, PKA activation has a relaxing effect on VSMCs, but during hyperglycemia, nucleotides (ATP, UTP) are released in the extracellular space that will autocrinely act on GPCRs, P2Y1 coupled to Gs activating cAMP generating adenylyl cyclases and leading to PKA activation. PKA, in a nanodomenium organized by ACAP 150/79 scaffold protein, will phosphorylate LTCC. BKCa hyperpolarizing activity on VSMCs, activated by increasing concentrations of Ca2+ and depolarization, by negative feedback limits Ca2+ influx determining smooth muscle relaxation. In diabetes, the association of BKCa ionic pore forming subunit α with β subunit (responsible for Ca2+ sensitivity) is low, decreasing STOC and favoring contractility. Hyperglycemia will trigger the generation and accumulation of advanced glycation endproducts (AGEs) that will determine cascade events through RAGE, including PKC activation with Ca2+ sensitization effect and BkCa reduced activity.

Conclusion: Diabetic hyperglycemia triggers multiple signaling pathways leading to increased arterial contractility. Therapeutic antagonism of AGE-RAGE axis, P2Y11 receptor and especially glycaemia level control are rational solutions to decrease arterial hypercontractility.

ID 215 A Severe form of Flu with Influenza Virus Type a Subtype H1 PDM09 in a Patient with Renal Transplant

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Objective: We present the clinical-epidemiological data and the evolution of a severe form of influenza in a patient with renal transplant.

Method: A 44-year-old male, unvaccinated in the 2018-2019 flu season, was admitted for a sudden onset symptomatology, characterized by fever, chills, myalgias, headaches, cough, dyspnea and polypnea. From personal history we retain: allograft renal transplant in 2015, in corticoid treatment with Prednison and immunosuppressant (Myfortic, Prograf).

Pathological clinical signs at admission: febrile (38.8 degrees Celsius), severe dyspnea with Sa02 = 87% in aa, polypnea with FR = 32 / min, intercostal titer, enlarged crackles in both pulmonary fields. Laboratory investigations performed: HLG, coagulation tests, ionogram, urea, creatinine, alkaline reserve, markers of inflammation and sepsis, cardiac markers, TGP, TGO, flu test, blood cultures, sputum examination. Imaging Investigations: abdominal-pelvic ultrasound, cardio-pulmonary radiography.

The patient followed an antiviral treatment with Oseltamivir 75 mg / day (adjusted to creatinine clearance) associated with broad-spectrum antibiotic treatment with Meropenem 1g at 12 hours, then 1g at 8 hours i.v (creatinine clearance adjusted doses) associated with Ceftriaxone 2g / day and Doxycycline 200 mg / day, corticotherapy and oxygen therapy.

Results: Analyzes revealed lymphomonocytosis, thrombocytopenia (108.000); increased creatinkinase; mild hepatic cytolysis; Nitrogen retention syndrome (cretinine = 2.7 mg/dl); hydroelectrolytic imbalances (hypochloraemia = 90 mmol/L, hyponatremia = 126 mmol/L,); inflammatory syndrome (PCR = 3.05 mg/dl, procalcitonin = 0.48 ng/dl); blood cultures and sputum examination were negative. Epidemiological surveillance of SARI was positive for influenza A virus, H1 subtype pdm09. Pulmonary radiography reveals bilateral alveolar condensation and interstitial drawing emphasis. Under the maximum anti-infective and pathogenic treatment, the progression was slowly favorable with the remission of symptoms.

Conclusion: Influenza can evolve severe in a patient under corticotherapy and immunosuppressive treatment.

ID 216 Tackling Frailty in Romania through Strategic Planning: ADVANTAGE JA Grant

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Objective: Demographic aging at EU level will cast a great burden on the health and social systems. In this context, three Romanian institutions (CNSMLA, NSPHMPDB, BBU) are part of Advantage JA, which aims to create a common understanding of frailty at EU level based on which member states will develop strategic measures in the field of frailty prevention and management. Frailty is defined as an age-related state of extreme vulnerability to stressors that increases the risk for negative health outcomes. In Romania frailty is not seen as a health priority and there are no specific strategic measures in the current health policies.

Methods: A Romanian frailty strategy was developed based on ADVANTAGE methodology. In the first phase, information was collected from national stakeholders. Based on collected data, available literature information and experience gained in previous EU projects on aging, several core documents were produced: State of the Art Report, Frailty Prevention Approach, Policy Brief. These documents were used to develop national roadmaps (strategic action plans) in the field of frailty prevention and management.

Results: The Romanian frailty roadmap was developed by a working group consisting of the three ADVANTAGE JA Romanian partners in the project and a group of experts in the health and health related sectors. Roadmap development was supervised the by ADVANTAGE coordinator and is currently under validation by Ministry of Health. The roadmap presents priorities for action and measures for addressing specific needs in different areas of action.

Conclusion: Development of a Romania frailty roadmap represents an important step for the health care of elderly patients.

Acknowledgement: This report is part of Joint Action '724099 / ADVANTAGE' which has received funding from the European Union's Health Programme (2014-2020).

ID 217 Intraoperative Anaphylaxis

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Introduction: Anaphylaxis is a potentially lethal reaction usually resulting from the sudden, clinically significant release of mast cell- and/or basophil-derived mediators into the circulation. Both IgE and non-IgE-mediated immune mechanisms have been implicated, and some agents may cause reactions by more than one mechanism. The more common identifiable causes of perioperative anaphylaxis are antibiotics, neuromuscular-blocking agents, chlorhexidine, and sugammadex. Risk factors for perioperative anaphylaxis include female sex, other allergic conditions, multiple past surgeries or procedures (especially for latex), and mast cell disorders.

Case report: We present a clinical case of a female patient with no medical history of hypersensitivity reactions. The patient underwent a minimal surgical procedure (a biopsic curettage) that required an iv anesthesia. During this procedure she had severe hypotension and bradycardia that responded only to adrenaline. The anesthesiologist suspected an anaphylactic reaction and requested an allergology consultation. We suspected an intraoperative anaphylaxis to an anesthesia inducing drug but mastocitosis could not be ignored. The serum triptase level was elevated in the first hour after the episode and after 3 weeks was at basal level. Also the c-kit mutation was negative. During this procedure she received: Propofol, Ceftriaxone, Acetaminofen, Ranitidine, Fentanyl and Midazolam. The most frequently involved drug in intraoperative anaphylaxis from the list mentioned above is the betalactam antibiotic. That is the reason that we requested the BDT to ceftriaxone who was intense positive. Because the patient needed a further radical surgical intervention for which a general anesthesia was required, we decided to test all the drugs necesary for this type of anesthesia. We performed skin prick and id. tests for the drugs that were used for the biopsic curettage and for the ones that were supposed to be used in a following surgical intervention (Rocuronium, Fentanyl, Ciprofloxacine, Midazolame and Marcaine heavy). The i.d test to Rocuronium was positive. After a thorough research into the patient's medical record we found that she was previously exposed to Rocuronium during a general anesthesia for a Caesarian section.

Discussions: Because Rocuronium is part of the same class of Benzylisoquinolis as Mivacurium and, Atracurium is proven to be the main direct inducer of mast cell degranulation, it has been decided for this patient's hysterectomy to perform a regional anesthesia with favorable intra and post operatory outcome.

Conclusion: In this case we diagnosed with the help of our AIC collegues an intraoperative anaphylaxis to betalactams and also we managed to avoid a potential future severe reaction to Rocuronium.We can draw a few conclusions from this case: it is very important for the anesthesiologist to recognize bradycardia and hypotension as only manifestations of an anaphylactic reaction and not as a side effect of the perioperative drugs; the anaphylaxis diagnosis can be made only by testing the serum triptase in the first 3 hours from the reaction and in certain situations the allergist can perferom skin testing for the perioperative medication to detect potential anaphylaxis inducing agents. The cooperation between the allergist and the anesthesist plays an important role in the recognition, treatment and further management of perioperative anaphylaxis cases.

ID 222 Thin Melanomas-Epidemiologic, Clinical, Dermatoscopic and Histopathological Aspects

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Obiective: To analyze the epidemiologic, clinical, dermatoscopic and histopathological features of thin melanomas in the Romanian population.

Method: This retrospective study included 23 patients (12 women) diagnosed with thin cutaneous melanomas, during 2010-2017, in a university clinic. A number of 28 melanocytic lesions were included in the study, as some patients had more than one lesion. This study was based on the information recorded in the patient's charts and on the clinical and dermatoscopic images obtained for case documentation.

Results: Most patients diagnosed with thin melanomas, 17 (81%) lived in the urban setting. The medium age at diagnosis was 59.95 years, and most lesions, 12 (52%) affected patients over the age of 60 years. Most commonly lesions were located on the lower limbs, 8 (30%) and on the trunk, 8 (30%). In males, the trunk was the most frequent site of involvement, 5 lesions (33%) on the anterior thorax and abdomen, 5 (33%) on the posterior thorax. In women, most thin melanomas were present on the lower limbs, 6 (50%). Some dermatoscopic features of thin melanomas were correlated with the Breslow depth of the lesion. Of the cases analyzed, 8(29%) were melanoma "in situ". The medium Breslow depth was 0.48 mm, and most lesions, 19(73%) did not have lymphatic, perineural or papillary dermis invasion.

Conclusion: In patients suffering from cutaneous melanoma, those with thin lesions have the highest survival rates. Our study identified interesting results, most of which are similar to the ones in studies conducted in other population settings. In order to ensure prompt diagnosis and treatment of this condition in our country, a better understanding of the disease characteristics and of the affected population are needed.

ID 224 Clinical, Demographic and Treatment Particularities of the Main Conditions Responsible for Lesions of the Oral Mucosa

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Objective: To analyze the demographic, clinical and treatment features of some of the most common conditions associated with lesions of the oral mucosa in the Romanian population.

Method: The present retrospective study included 80 patients diagnosed with pemphigus vulgaris, bullous pemphigoid and oral lichen planus, during 2015-2017, cared for in two university hospitals in Bucharest.

Results: We observed a female predominance, as 49 (61%) of patients were women. The most commonly affected age group was 61-70 years old. Most patients, 46 (57%) lived in urban setting. We identified 36 (45%) patients diagnosed with pemphigus vulgaris, 26 (33%) with oral lichen planus and 18 (22%), with bullous pemphigoid. The tongue and oral mucosa were the most affected sites in patients with pemphigus vulgaris, each accounting for 40% of cases. In patients with oral lichen planus the oral mucosa was the most commonly involved site, 73% of cases. In bullous pemphigoid, lesions occurred most often at the gingival level, 455 of cases. Most patients had at least one associated condition. Immunosupresive therapy was the most commonly used treatment in pemphigus vulgaris cases (33%), followed by the association between systemic corticotherapy and immunosupresants (31%). Bullous pemphigoid patients were most often treated with immunosupresants alone (44%). The majority of patients diagnosed with oral lichen planus (73%) were treated with topical corticosteroids as single therapy.

Conclusion: In Romanian patients with lesions of the oral mucosa, the conditions most commonly responsible, are pemphigus vulgaris, oral lichen planus and bullous pemphigoid. Our study identified interesting results, however it was limited by the small size of the patient group. For a deeper understanding of the features of these diseases in the Romanian setting more research is needed.

ID 225 *Clostridioides Difficile* – a Health Care-Associated Infection?

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Objective: Presenting a clinical retrospective study on patients hospitalized at Hospital for Infectious and Tropical Diseases "Dr. Victor Babes". Clostridioides difficile infection is the most frequent nosocomial infection diarrhea. The evolution of the illness is unfavorable in most cases, with frequent associated death and recurrent infections. The main source of infection is represented by colonized persons with or without manifesting symptomatology.

Materials and methods: A group of 2480 patients was analyzed between 2012-2018. Distribution by year was: 215 cases in 2012, 318 cases in 2013, 483 cases in 2014, 343 cases in 2015, 348 cases in 2016, 380 cases in 2017, 393 cases in 2018. We had 58% men and 42% women. Patients pathological background was represented by cardiovascular diseases, tuberculosis, chronic hepatitis, digestive diseases, antibiotic use, endocrine diseases, oncological diseases (chemotherapy and radiotherapy). Treatment used was Vancomycine, Metronidazole, Tigecycline.

Results and conclusions: There was a rise incidence of C. difficile infection in the past 6 years. The most frequently affected age group was >60 years with associated pathologies and past surgical interventions. C. difficile infection is currently a serious public health-care problem. It is necessary to impose careful antibiotic use, considering the frequent correlation between this type of infection and antibiotic abuse.

ID 237 Diagnostic Approach in Combined Hepatocelullar-Cholangiorcarcinoma. A Case Report and Literature Review

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Introduction: Mixed hepatocellular carcinoma-cholangiocarcinoma (mHCC-CC) are exceedingly rare tumors of primary liver cancer with biphenotypic differentiation – tumor cells that express both biliary and hepatocellular markers on an immunohistochemistry examination.

Case presentation: We report a case of a caucasian male patient presented with non-specific right upper quadrant symptoms, typical Magnetic Rezonance Imaging (MRI) findings of intrahepatic colangiocarcinoma and elevated α-fetoprotein serum level (x100 >N). The immunohistochemistry revealed a mixed form of hepatocellular carcinoma-cholangiocarcinoma.

Conclusion: in patient cases where imaging features and tumor markers are discordant, careful pathology analysis is mandatory for a dedicated therapy.

ID 241 PHEEM Questionnaire: Validation and Results in Four Medical Services

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Objective: PHEEM (Postgraduate Hospital Educational Environment Measure) was developed in UK to evaluate various aspects of the clinical learning environment for junior doctors. It has been validated and used successfully in several countries. We aimed to validate it in Romania and to see its results among Romanian residents.

Methods: The questionnaire was translated into Romanian and back-translated into English, and then its characteristics were measured on 160 residents from Colentina Hospital (internal medicine, cardiology, neurology and gastroenterology departments).

Results: Internal consistency analysis revealed Cronbach's alpha of 0.95. Removal of any item did not improve Cronbach's alpha value. Factorial analysis identified one dimension of the questionnaire although 11 factors had Eigenvalues >1. One factor had the highest Eigenvalue of 15.1 and explained 37.8% of total variance. No resident considered the clinical environment very poor, 9.3% considered there is plenty of problems, 34.2% rated it as more positive than negative, but room for improvement, and 41.6% rated it as excellent. Concerning the domains, the median marks were 43 (excellent) for the perception of autonomy, 46 (moving in the right direction) for the perception of teaching, and 32 (more pros than cons) for the perceptions of social support.

Conclusion: The PHEEM questionnaire was validated in Romanian and could be used to assess the clinical learning environment from different hospitals and specialties (including surgical), in order to see where the problems are, and to solve them.

ID 242 How Does Arc Spanning with Volumetric Modulated Radiotherapy (VMAT) Influence Integral Dose to the Normal Brain in Glioblastoma Multiforme Patients?

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How does arc spanning with volumetric modulated radiotherapy (VMAT) influence integral dose to the normal brain in glioblastoma multiforme patients?

Objective: This study was designed to evaluate whether double arc rotation utilisation increment integral dose to normal brain (NB), over two partial or single full arcs modalities, as it is hypothesised that higher energy deposition in normal structures is correlated with increased radiation-induced cancer risk.

Material and methods: Twenty patients treated with adjuvant radiochemotherapy for glioblastoma multiforme between 2016 - 2018 were replanned with three different delivery approaches: two partial arcs with optical structures shielding (2PA), single full arc (1FA) and double full arc (2FA) with standard 60 Gy in 30 fractions dose prescription. Target coverage (V95%), integral dose (ID) to the normal brain to low, medium and high thresholds (ID 5, ID30, ID60) and relevant dose and volume metrics (Dmax, Dmean, V5Gy, V30Gy, V60Gy) were calculated using the dose-volume histograms and reported. Two-tailed paired Student t-test for parametrically and Wilcoxon test for non-parametrically distributed data were used to report differences between the three techniques, with $p \leq 0.05$ considered statistically significant.

Results: Our analysis indicated that 2FA resulted in a better V95% (99.11%±1.54) when compared to 1FA (98.65%±1.83, p=0.03). ID to NB in 2FA, when compared to 1FA, decreased in low and medium level (0.47±0.3 Gy*L and 9.77±3.06 Gy*L vs. 0.48±0.3 Gy*L and 9.81±2.93 Gy*L, p=0.036, p=0.046) and increased without statistical relevance in the high dose level (26.28±3.6 Gy*L vs. 25.87±3.84 Gy*L, p=0.796). On the other hand, 2PA provided the lowest NB mean dose (22.83±6.49 Gy) over 1FA (24.31±6.17 Gy, p=0.023) and 2FA (24.55±6, p=0.014).

Conclusion: Our results suggest that arc length or number increasing is not correlated with additional relevant NB irradiation, therefore double arc should be used whenever considered appropriate to ensure the necessary target coverage.

ID 243 The Immune Response to Chemotherapy and Radiotherapy in Breast Cancer Patients

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Introduction: Breast cancer is among the most studied forms of cancer. It is among the cancer treatments that have received immune based treatment strategies. The immune system is very critical in suppression of cancer development. Immune cells are actively involved in suppression of cancer cells in early stages of development, but with time the cancer cells alter the immune cells to the extent that they begin promoting tumor progression.

Objective: The main objective of this study was to better understand the effects of the treatment on the immune system. Peripheral blood samples were collected from 50 patients diagnosed and treated at the Institute of Oncology Bucharest, to determine the influence of T lymphocytes on tumour progression as possible prognostic factors and their response to chemotherapy or radiotherapy treatment.

Results: Young patients had lower percentages of circulating CD4 + and CD8 + T lymphocytes, a condition commonly associated with lower cellular immunity.

Percentages of T lymphocytes populations were significantly modified between pre- and post-treatment assessments for patients undergoing treatment chemotherapy. Changes recorded at the level of T lymphocytes subpopulations were different depending on the treatment scheme used.CD4 + and CD8 + T cells have opposite roles in the progression of breast cancer and in its evolution. Higher CD4 + T and CD4 + / CD8 + T values were observed in the group of patients undergoing radiotherapy.

Conclusion: Although it has been considered that chemotherapy has immunosuppressive effects, contrary, it has also been shown to have immunomodulatory effects. Modulation of the immune system is a promising treatment strategy in cancer especially in the triple negative subtype and for tumors with overexpression of HER2, these being the most immunogenic subtypes.

ID 244 Rapidly Progressive Axonal Neuropathy as Key Presenting Symptom in Sjogren Syndrome

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Introduction: Sjogren syndrome (SS) is most common in older women and may be primary or secondary (associated with other autoimmune diseases). Up to 25% of cases may initially present with forms of peripheral neuropathy.

Case presentation: A 65-years-old female without previous medical history developed in August 2018 weight loss, anorexia, fatigue, xerophthalmia and xerostomia. These symptoms were followed by distal painful paresthesias of lower limbs with proximal extension, gait disorder and involvement of distal upper limbs. Oral steroid treatment was initiated in December 2018 without improvement. The patient was referred to our center in February 2019, when she presented bilateral stoppage gait, distal paraparesis 3-4/5 MRC, abolished lower limb DTRs and distal sensory loss in all limbs. Other clinical findings included Raynaud syndrome and right cervical mass. MRI revealed hypertrophied parotid gland with cervical lymphadenopathies. Severe axonal sensory-motor polyneuropathy of lower limbs with chronic and active denervation were diagnosed upon electroneurography. Differential diagnosis included hematologic malignancies, systemic vasculitis, sarcoidosis and secondary SS. Biological panel revealed B12 deficiency, elevated rheumatoid factor, antinuclear, anti-Ro/La antibodies, CRP and beta-2-microglobulin, cryoglobulinemia and positive monoclonal IgM and kappa light chains on immunofixation electrophoresis. CSF analysis identified slightly elevated proteins and positive oligoclonal bands. Biopsies from bone marrow, cervical lymph nodes, parotid and salivary glands were negative. No sign of malignancy was identified (whole-body CT scan, mammography, transvaginal and thyroid ultrasounds). Final diagnosis was primary Sjogren syndrome with secondary sensory-motor axonal polyneuropathy. After 5 sessions of plasma exchange and 4 sessions of Cyclophosphamide 200 mg qd, gait significantly improved, with persistence of painless paresthesias.

Conclusion: The possibility of occult hematological disease was the main diagnostic challenge of this case. Neurologic manifestations were likely due to cryoglobulinemic vasculitis affecting vasa nervorum and improved with plasmapheresis. The patient is scheduled for monthly cyclophosphamide pulse-therapy as maintenance treatment.

ID 245 Particularities of Syncytial Virus (RSV) Infection Impact on Upper Airways in Infants

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Objective: Identification of particularities of syncytial virus (RSV) infection impact on upper airways in infants.

Methods: The study cohort included 60 children, admitted in the Department No.1 "Acute Diseases of the Respiratory System in Children of Young Age" of the University Hospital PMSI SRIMC No.1, 38±0.24 (63.33%), p<0.001 out of all being boys and 22±0.48 (36.66%), p<0.001 – girls. The children were divided into two groups according to age: 1 month, 1 day - 6 months – 51±0.76 (85%), p<0.001 and 7-12 months – 9±0.43 (15%), p<0.001 children. The control group was composed of 40 children with the diagnosis of acute bronchitis, out of whom, 27±1.07 (67.5%), p<0.001 were boys and 13 ±0.39 (32.5%), p<0.001 – girls. The age included was: 1 month, 1 day - 6 months in 38±1.80 (95%), p<0.001 and 7-12 months in 2±0.33 (5%), p<0.001 children. The diagnosis was confirmed in line with the national standards of RSV infection management in infants. The virological examination identified the presence of RSV in 100% of cases. The data obtained were processed according to the statistical method "Student".

Outcomes: In this infection, the inflammation of the upper airways presented unevenly. The upper respiratory airways were affected in 17±0.49 (28.33%) children, among them, 11±0.46 (18.33%) children had the diagnosis of rhinopharyngitis, while 6±0.37 (10.0%) children - pharyngitis.

Conclusion: Upon the onset of the disease, the inflammation of the upper airways in syncytial virus (RSV) infection in infants manifested as rhinopharyngitis.

ID 246 Medical Students' Opinion on Preparing an Open-Book Examination

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Objective: The amount of knowledge in genetics various between students, depending on their previous high-school training, so it is difficult to undoubtedly evaluate the knowledge they acquire during the workshops of medical genetics. To reduce this difference when evaluating students, I ventured to explore whether their marks would be higher, if at the end of the term, when their knowledge was being tested, they were permitted to use a text-book. This study analyzes students' opinion concerning the difficulty of preparing the open-book examination.

Method: Questionnaires were answered by 133 first year medical students of the Carol Davila Medical and Pharmacy University at the end of the workshops of medical genetics in January 2019. The questions were answered right after the open-book examination, and students were asked to grade the difficulty of reading and then learning from Thompson & Thompson Medical Genetics 8th edition, to choose if it was more useful and easier to study from the book compared to the e-mail notes I sent, and also to grade the difficulty of using the book during the examination.

Results: Preparing the examination by reading from the text-book had been easy for 16.54% of students, difficult for 29.32% of them, and neither easy, nor difficult for most (49.62%); but when asked about learning from it 48.12% answered it had been difficult, and 31.58% that it had been neither easy, nor difficult. When asked about using the book during the examination answers were: 10.43% very easy, 38.26% easy, 35.65% neither easy, nor difficult, and 12.17% difficult.

Conclusion: For most students using a text-book during the examination had not been difficult, although learning from it had been challenging. Most of the students had a neutral opinion when considering the difficulty of preparing for the open-book examination.

ID 247 Impact of Obesity on Endometrial Cancer Patients' Treatment Outcome

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Objective: The aim of this study was to evaluate and review epidemiological data on the impact of obesity on treatment outcomes and survival for endometrial cancer patients and to assess safety and feasibility of newer techniques of treatment in obese patients.

Materials and Methods: A systematic search of PubMed was conducted to identify articles published from 1989 to 2018 that focused on the impact of obesity on pathogenesis, treatment outcome and survival for endometrial cancer patients. Data were independently extracted and analyzed.

Results: Thirty-two relevant articles were reviewed, results suggesting that obesity impacts treatment outcome adversely. On average, obese patients had decreased quality of life, worse surgical outcomes and adjuvant treatment restrictions compared to their non-obese counterparts. Surgical procedure and obesity level influence treatment outcomes, whereas treatment planning and positioning impact safety and accuracy of radiotherapy for obese endometrial cancer patients. Minimally invasive surgeries and modern on-board imaging (OBI) verification systems proved to be useful, were accompanied with fewer complications and should be performed on obese patients.

Conclusion: Currently the molecular mechanisms through which adipose tissue and obesity are influencing endometrial cancer pathogenesis are better understood. Due to different treatment outcome in obese endometrial cancer patients, reviewed literature data confirm the need of a more personalized treatment approach for this category of uterine cancer patients. Also, all these articles suggest that further research is necessary; using more randomized controlled trials and prospective studies to identify the best procedures for maximal outcomes.

ID 249 Hypothalamic Amenorrhea – Diagnostic Approach and Follow-up

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Introduction: Functional hypothalamic amenorrhea (FHA) is a form of secondary amenorrhea resulting in estrogen deficiency in young premenopausal women.

Methods: Clinical, hormonal and imaging evaluation

Results: We describe a case of a 38 years-old female with a history of an 11-month amenorrhea, with no prior response to progesterone treatment. Her menarche was at the age of 11, with regular cycles interrupted by one pregnancy resulting in a healthy baby. She had lost 6kg before the onset of amenorrhea and had a psychological trauma 8 years prior.

Examination: BMI 20 kg/m2, bilateral cosmetic breast implants, hirsutism.

Laboratory tests: LH <0.2 mIU/mL, FSH 4.01 mIU/mL, Estradiol <20 pg/ml, TSH 0.48 mUI/ml with FT4 10.63 pmol/l, T3 69.7 ng/dl- low which could indicate a possible central hypothyroidism. Prolactin and testosterone were normal. We performed a GnRH stimulation test with adequate increase in LH, FSH and estradiol. 24 hours after the test Estradiol level was 109pg/mL.

CT scan showed the presence of a pituitary micronodule, indicating an incidentaloma (prolactin and IGF-1 were normal) but on a subsequent MRI this was excluded.

The diagnosis was of FHA and she presented regular menses with estroprogestative replacement therapy. When hormone therapy was discontinued for testing at 1 and 2 years of follow up, there was no spontaneous return of menses.

Conclusion: Our case illustrates the diagnosis steps of hypogonadotropic hypogonadism, as well as pitfalls, such as pituitary incidentaloma. Long-term follow-up is required to monitor therapeutic responses, as well as spontaneous resolution of hypogonadism.

ID 252 There is Still Hope at a Normal Life for Patients with Advanced Parkinson Disease

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Introduction: The features of advanced Parkinson disease are disability requiring help for activities of daily living, motor fluctuations, severe dysphagia, recurrent falls, and dementia. Due to the overall hypokinesia and gastroparesis, the oral treatment is no longer efficient and the patients can be considered for advanced treatment options such as continuous infusion of intrajejunal levodopa/carbidopa intestinal gel (LCIG).

Objective: The main objective was to evaluate the safety and efficacy of levodopa-carbidopa intestinal gel treatment in advanced Parkinson's disease patients.

Methods: This was a prospective, observational study that assessed the "On-Off" fluctuation using the UPDRS Scale and cognitive evaluation using the MMSE and the clock test before and after the LCIG treatment.

Inclusion criteria consisted of motor fluctuations and dyskinesia, off periods more than 1-2 hours and at least 5 doses of levodopa per day.

Results were expressed as a measure of dispersion for continuous variables and as absolute numbers for categorical variables using the SPS statistical analyses program.

Results: The study group included 49 patients with advanced PD (mean disease duration 11 years) majority males (63.39% vs 30.6%) from the urban and rural regions of south Romania, with ages between 51- 86 years old, with a medium level of education.

The procedure consisted of percutaneous endoscopic gastrostomy (PEG) tube placement, with aproximate 5 days preoperative of dose titration on the nasogastrical tube.

At 24 months LCIG treatment led to reductions in UPDRS scores ($p=0.03$) and there was no progression of cognitive impairment.

The adverse events reported were: weight loss during the first year after LCIG, device related infections, tardive stoma granulomas, device dislocations, device issues.

Conclusion: LCIG treatment led to sustained improvements in motor and non-motor symptoms, as well as quality of life in advanced PD patients.

ID 255 Primary Ciliary Dyskinesia – Report of Four Cases

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Introduction: Primary ciliary dyskinesia (PCD) is an autosomal recessive disorder characterized by immotile, dysmotile, or absent cilia. It is characterised by recurrent and chronic infections of the upper and lower respiratory tracts, with symptoms starting soon after birth caused by impaired mucociliary clearance. The prevalence of this pathology is reduced (1:40000), and the diagnosis is often delayed. Approximately 50% of patients with PCD have situs inversus totalis. The triad of situs inversus totalis, chronic sinusitis, and bronchiectasis is referred to as Kartagener syndrome, a subgroup of PCD.

Methods: We present a series of 4 cases, based on the experience of our clinic, which raised the suspicion of ciliary dyskinesia, between 2016-2019

Results: In the last three years, suspicion of ciliary dyskinesia occurred in 4 patients, admitted for chronic respiratory manifestations, aged between 7 and 17 years. All 4 patients experienced chronic wet cough, three of them also having recurrent cough since early infancy. Moreover, three of the four patients associate the chronic pulmonary disease with extensive bronchiectasis and *situs inversus*. One of the patients has situs solitus, chronic pulmonary disease and tested positive for saccharin. None of these cases was confirmed by either biopsy or genetic testing.

Conclusion: Even though it has a low prevalence, ciliary dyskinesia should be taken into consideration by patients suffering from chronic wet cough, in order for them to get an early diagnosis and an appropriate multidisciplinary treatment, before the child has sustained irreversible lung damage.

ID 256 Cerebral Venous Thrombosis Post Ventriculo-Peritoneal Shunting – Case Report

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Introduction: Ventriculoperitoneal shunting (VPS) represents is a common intervention for the treatment of hydrocephalus. Although the procedure is not complex, it can lead to several complications such as cerebral hemorrhage, subdural hematoma and shunt infection.

Case report: A 72-year old man, with a history of ischaemic stroke with hemorrhagic transformation, hypertension, diabetes, who underwent left VPS and presented bilateral chronic subdural frontal-parietal hematomas secondary to shunting procedure was admitted for paraparesis preceded by involuntary movements, especially of the lower limbs. The patient had no recent head injury and reported an episode of aphasia with recovery in a few hours occurred one month prior. Neurological examination revealed right central facial palsy, tetraparesis 4/5 MRC in right limbs, 3/5 MRC in left limbs, with bilateral assistance during walking. Non-contrast CT-scan showed remitting subacute-chronic right frontal-temporal-parietal and left frontal-parietal subdural hematomas and a small haematoma of the left hemisphere. Contrast CT showed acute extensive superior sagital sinus thrombosis, thrombosis of the right straight, sigmoid and transvers venous sinuses and of both internal jugular veins. In order to identify the etiology of CVT blood screening for thrombophilia was performed and tested negative, torax-abdomen and pelvis CT scan, superior endoscopy, colonoscopy, ophtalmologic, dermatologic and urologic examination ruled out an occult neoplasia, immunological screening for vasculitis was negative, heterozygos mutations of MTHFR C677T and MTHFR A1298C genes were identified. The involuntary movements were interpreted as epileptic seizures. The patient was treated with anticoagulants and antiepileptic drugs with complete recovery of tetraparesis and remission of epileptic seizures.

Conclusion: Although a rare complication, CVT can occur after VPS. A possible mechanism could be intracranial hypotension caused by an imbalance in the CSF pressure due to a malfunction of VPS. The co-occurrence of subdural hematomas caused difficulty in establishing diagnosis and making the decision for anticoagulation.

ID 257 The Benefits of Everolimus in Patients Diagnosed with Tuberous Sclerosis

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Background: Tuberous sclerosis complex (TSC), also known as Bourneville's disease, is an autosomal dominant genetic disorder that results from inactivating mutations either in the TSC1 or TSC2 gene. These genes are involved in the inhibition of the mammalian target of the rapamycin pathway, therefore mutations lead to the loss of their tumor-suppressor activity causing abnormal cellular proliferation in multiple organs, including the brain, heart, kidney, skin and lung. Typical cerebral lesions are: glioneural hamartomas, subependymal nodules, subependymal giant cell astrocytoma that cause neurological symptoms: seizures, cognitive impairment or other behavioral disorders. TSC is one of the most common causes of epilepsy- resistant to treatment. Since 2018 Everolimus was approved by the FDA, EMA, ANMDM for the treatment of epilepsy in patients diagnosed with TSC.

Objective: Clinical evolution of patients treated with Everolimus in different doses.

Material and methods: The study included eleven patients with TSC, aged between 18-50 years without significant heredo-collateral history.

Results: More than half of all patients presented cerebral lesion: cortical tubers and subependimal and cortical/subcortical tubers that were manifested by generalized tonico-clonic epileptic seizures and polymorphic epileptic seizures. Other clinical features observed in all patients were renal angiomyolipomas and cutaneous angiofibromas and only three of them had lymphangiomyomatosis. Regarding cutaneous, renal and pulmonary lesions there was an improvement in the clinical status of patients by reducing the size of angiofibromas as well as renal angiomyolipomas and a reduction in the number of epileptic seizures by about half of the initial frequency due to the treatment. The only adverse reaction observed in all patients was candidiasis stomatitis.

Conclusion: Everolimus is the first m-TOR inhibitor therapy to be approved as the treatment option for patients with tuberous sclerosis that can't be surgically treated, acting by reducing the characteristic lesions which results in an improvement in clinical status.

ID 258 Fabry's Disease – Clinical Manifestations, Neurological Involvement and MRI Findings

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Introduction: Fabry disease (FD) is an X-linked lysosomal storage disorder caused by abnormalities in GLA gene, which leads to a deficiency in α-galactosidase A, that determines the abnormal accumulation of glycosphingolipids in the vascular endothelium and in epithelial and smooth muscle cells. Clinical manifestations of FD involve renal and cerebrovascular disease, hypertrophic cardiomyopathy, peripheral neuropathy, small fiber neuropathy (SFN) and autonomic nervous system (ANS) impairment.

We conducted a retrospective study on a series of 22 patients diagnosed with FD, with ages from 18 to 60 years and we analyzed their clinical manifestations and how the central and peripheral nervous system were involved.

Material and methods: Our patients were tested for enzyme activity and gene mutation, were investigated for neurological involvement by nerve conduction studies and MRI, and they were examined by other specialists to establish the involvement of other organs.

Results: There were more men diagnosed with FD than women.

The age at onset was higher for women than for men.

Chronic kidney disease (CKD) was diagnosed at 17 patients, 11 had hypertrophic cardiomyopathy, 9 patients presented angiokeratomas and cornea verticillata was identified in 5 patients.

Neurological findings: 18 patients presented acroparesthesia, 10 had hipohidrosis and 3 patients presented hearing loss. Three women had a history of stroke and two men had one of transient ischemic attack.

Brain MRI revealed bilateral demyelinating lesions without DWI changes in the supratentorial white matter, suggestive of cerebral small vessel disease.

One patient had bilateral high signal intensity on T1 in the pulvinar regions (characteristic of FD), indicating mineral deposition.

Conclusion: The neurological findings were SFN, autonomic dysfunction and cerebral microangiopathy.

MRI represents the most sensitive method to detect CNS involvement in FD.

The most frequent clinical manifestation were CKD, hypertrophic cardiomyopathy and angiokeratomas.

ID 259 On the Wrong Path? Carotid Arteries and Their Deviations from the Anatomical Course

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Purpose: The present report evaluates the variations in the course of the carotid arteries in association with an increased degree of stenosis, in order to provide information about the treatment of choice such as carotid artery stenting or endarterectomy.

Material and methods: We retrospectively evaluated 110 patients that underwent cerebral angiography in the interventional radiology department of the Emergency University Elias Hospital of Bucharest, between January 2018 and March 2019, due to symptomatic vascular pathology or previous eco Doppler findings sustaining carotid stenosis. Furthermore, we analyzed data from medical literature in order to discover the etiology and possible effects of these variations.

Results: Kinking, coiling and tortuosity of the carotid arteries were detected in 24 cases, 9 of which associated a high degree of stenosis at the level of the common carotid bifurcation and proximal part of the internal carotid artery. In order to improve the cerebral blood flow, the treatment has to correct the hemodynamic effects of the atherosclerotic carotid disease, and in the same time, the abnormalities in the course of the carotid arteries if there are any.

Conclusion: The course variation of the carotid arteries do not represent a rare condition and are considered mainly related with aging, but the clinical importance and their role in ischemic stroke it still remains controversial. The results of present study suggest that course variations of the carotid arteries may be associated with an increased degree of carotid artery stenosis.

ID 260 Familial Cerebral Cavernous Malformation: Clinical and Diagnosis Features

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Introduction: Cerebral cavernous malformations are collections of small blood vessels (capillaries) in the brain that are enlarged and irregular in structure. There are two forms of the condition: familial and sporadic. Mutations in at least three genes, KRIT1, CCM2, and PDCD10, cause familial cerebral cavernous malformations. Mutations in these three genes account for 85 to 95 percent of all cases of familial cerebral cavernous malformations.

Case presentation: A 61- years-old female, with a medical history of high blood pressure, started developing in the morning confusion and she presented amnesia for the events of the last 24-48 hours. Significant heredo-collateral history: two maternal cousins are diagnosed with cerebral cavernous malformation. Examination revealed only temporal and spatial disorientation and high blood pressure. First was performed cerebral CT which presented two spontaneous hyperdense pontine lesions (possibly haemorrhagic). And then was done cerebral native IRM which revealed: cerebral cavernous malformations, small menigioma in the left front lobe, and discreet degree of atrophy cortical and subcortical. Video EEG revealed non-specific changes at the right temporal level. So the patient was diagnosed with cerebral cavernous malformations, meningioma in the left frontal lobe. The patient received symptomatic treatment.

Discussions: Due to the heredo-collateral history, the patient and her family have to perform genetic counseling, because this condition has an autosomal dominant pattern of inheritance, which means one copy of the altered gene in each cell is sufficient to cause the disorder. In the familial form, an affected person inherits the mutation from one affected parent. Because video EEG doesn't revealed an epileptiform discharge the patient has to do PET CT, to cut out the possibility of an epileptic lesion.

ID 263 Right Ventricle Dimensions and Systolic Function Changes in Hyperthyroidism

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Objective: Right ventricle was for a long time considered to be the „insignificant chamber", while recent studies demonstrate that the right ventricle dilatation and sistolic dysfunction, are associated with increased cardiovascular mortality and morbidity. In the present medical literature there is litle information related to the relation between the right ventricle dimensions and patients with low TSH values. Our objective has been to compare the right ventricle (RV) dimensions and systolic function between hyperthyroid versus euthyroid patients.

Methodology: we included in our study 82 patients with hyperthyroidism, half of them with clinical or subclinical hyperthyroidism and half of them with normal TSH levels, obtained after proper treatment. Hyperthyroid patients were represented by the low seric TSH level group (<0,4 mUI/L) and the most common cause of the disease was autoimmune (Grave's disease) and thyroid nodules. Using echocardiography parameters like RV basal dimeter and tricuspid annular systolic excursion (TAPSE), we studied if there is any correlation between TSH levels and RV dimensions and systolic function.

Results: As supposed, for this pathology, the majority of the hyperthyroid patient were women (78%). According to statistical T-test analisys, right ventricle basal diameter was statistically significantly higher in hyperthyroid patients compared with patients with normal TSH level after treatment (P= 0,04). There was no statistically significant positive correlation between TAPSE and the TSH levels.

Conclusion: Our study showed statistically significant negative correlation between RV dimension basal diameter and TSH levels in patients with hyperthyroidism, which may be an important sign of clinical right cardiac involvement. It is interesting to speculate on the basis of the high prevalence of RV increased dimensions, that many of the clinical signs of right heart failure can be correlated to TSH level.

ID 10 Minimally Invasive Lumbar Discectomy – Surgical Technique and Case Series

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Objective: Intervertebral disc herniation is a frequent and debilitating illness targeting a vast array of patients. Given the impact over quality of life, function and pain, usually after conservative treatment failure, this pathology has been addressed surgically through many approaches. The surgical technique demonstrated here is a reputable option for acquiring adequate working field, spinal and root visualization and hernia removal.

Method: A 10-patient series that referred to the clinic for progressive installment of pain and limited function localized to the lumbar spine and/or legs benefited from x-ray guided, minimally invasive posterior paraforaminal discectomy, without need for segmental fixation.

Result: The patient group benefited from increased quality of life and functional scores, decreased pain score at follow-up and constant intervertebral topography as compared with preoperative x-rays. Results found here are backed by current literature, proving that this surgical technique may be utilized when attempting discectomy without fixation/fusion.

ID 11 Minimizing Complication Rates in Shoulder Arthroplasty

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Objective: Shoulder arthritis accounts for pain, limited function and inferior quality of life. A vast array of treatments have failed in alleviating this pathology, whether conservative or surgical, making shoulder arthroplasty, although a salvage procedure, one of the more modern alternatives.

Method: A series of 400 patients have been referred to the clinic for pain and loss of function in the shoulder secondary to traumatic or non-traumatic illness and were diagnosed with gleno-humeral cartilage loss, and benefited from either partial, total or reverse shoulder arthroplasties.

Results: The patients have decreased postoperative pain levels, returned to work or daily activities and have preserved global active range of motion with a minor decrease in internal rotation prior to surgery. A minor population group of 8% have undergone reintervention for various causes, the most frequent (5%) accounting for conversion from anatomical to reverse shoulder arthroplasty due to progression of rotator cuff pathology.

Conclusion: Shoulder arthroplasty, although considered a salvage procedure is nonetheless efficient in treating shoulder arthritis, with a comparatively low complication rate.

ID 12 Open Surgery for Dupuytren's Surgical Technique

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Objective: Correcting finger contracture in Dupuytren's can be obtained through various surgical methods including but not limited to: percutaneous needle fasciotomy, clostridium hystoliticum injections and classically – open fasciotomy, with or without autologous fat grafting.

Method: A patient that referred to the clinic for progressive stage III contracture of the right ring finger over a period of 3 years benefited from open release, excision of the contracting chords, volar Proximal Interphalangeal arthrolysis and VY skin flap advancement for wound coverage. The arthrolysis and skin flap advancement were necessary in order to correct the long standing manifestation of disease. The hand was put in a splint at night time for the next 6 weeks with active range of motion exercises daily for 4 weeks.

Results: The patient recovered function in the finger, is pain free and presents no dysesthesia upon inspection at follow-up.

Conclusion: Although surgically challenging, open fasciectomy for Dupuytren's is still mandatory within a hand surgeon's armamentarium, with more than satisfactory results

ID 13 Percutaneous Transpedicular Biopsy for Diagnosis Confirmation of Spondylodiscitis Case Series

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Objective: Spondylodiscitis is infrequently difficult to diagnose as infectious agents vary in virulence and the immune response they generate. The surgical technique demonstrated here is a reputable option for acquiring biological material around and about the vertebral bodies for microbiological and histological analysis. In addition, antituberculous therapy poses its own regimen of biological adverse reactions and cannot be empirically administered to patients based solely on suspicion.

Method: A series of patients that were referred to the clinic for progressive installment of pain and limited function localized to the thoracic/lumbar spine benefited from percutaneous transpedicular biopsy of lesions visible on CT/MRI that were clinically suspected as infectious discitis. The patients were included based upon the lack of response to usual antibiotic regimen.

Result: The laboratory analysis came back positive for TB, with some patients undergoing further surgical intervention for stabilization associated with antituberculous medicine.

ID 14 Radiocarpal Fusion – Indication in the Advanced SNAC Wrist and Surgical Technique

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Objective: Scaphoid non-union advanced collapse or SNAC results from a non-healing traumatism of the scaphoid bone. Although there are many treatment choices described in the literature, the current paper presents a surgical treatment option for addressing this pathology currently considered salvage or last resort.

Method: A patient had been referred to the clinic for pain and loss of function in the right hand progressively installed over a 2-year period after apparently minor trauma was diagnosed with advanced SNAC wrist with radio-intercarpal arthritis and scaphoid non-union and benefited from dorsal radiocarpal fusion with the aid of a plate and screws construct.

Results: The patient is pain free, returned to work and has preserved active and painless pronosupination of the involved hand. Wrist fusion proves to be a good surgical solution in addressing radiocarpal and intercarpal arthritis secondary to SNAC wrist, result also found in current literature.

ID 15 Surgical Technique for Biomechanical Correction in the Severely Deformed Arthritic Knee

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Objective: Knee arthritis may lead in advanced disease to bone stock depletion with subsequent biomechanical and functional impairment. The current paper aims to present the surgical technique used in correcting axial deformity in advanced disease progression of knee osteoarthritis.

Method: A patient series referred to the clinic for pain and limited movement and were diagnosed with bilateral severe varus deformity of the knees secondary to severe arthritic disease and benefited from successive total knee arthroplasty with biomechanical axis balancing.

Results: Pain, mobility and quality of life improved after each surgery, the level of activity increased and was comparable with before disease aggravation status. Total knee arthroplasty is useful in biomechanical axial deformity balancing for regaining function and addressing pain.

ID 16 Surgical Technique Regarding Arthroscopic Latarjet

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Objective: Gleno-humeral instability accounts for pain, limited function and inferior quality of life. Overwhelmingly posttraumatic, this type of instability is responsible for a decrease in the athletic capabilities whether in contact or non-contact sports as well as in daily activities such as personal hygiene. Over the years, a large palette of surgical interventions has been promoted for the treatment of gleno-humeral instability. At the moment, the arthroscopic transposition of the coracoid process along with the conjoint tendon – the Latarjet procedure has picked up momentum and seems to give favorable results in the literature. This paper aims to discuss the surgical steps involved during the intervention.

Method: A series of 40 patients have been referred to the clinic for pain and loss of function in the shoulder secondary to traumatic events and were diagnosed with antero-inferior gleno-humeral instability, and benefited from arthroscopic Latarjet technique and fixation achieved with headless compaction screws construct.

Results: Although 10% of the patients had received prior surgery, this subgroup followed the global population pattern. The patients have achieved postoperative decreased pain levels, returned to athletic or daily activities and have preserved global active range of motion similar to preoperative values, except a 15% decrease in external rotation.

ID 17 Sensibility and Specificity of Abdominal Ultrasound in Acute Appendicitis

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Introduction: Despite the high incidence of appendicitis, the diagnosis remains difficult with risk of negative appendectomies.

Objective: We wanted to evaluate the performance of ultrasound examination in acute appendicitis and the correlation of ultrasound with white cell blood count.

Material and method: We conducted a retrospective cohort study on patients with the diagnostic suspicion of acute appendicitis, admitted in our clinic during the year 2018.

Results: From the total of 262 patients with appendectomy (open or laparoscopic) for acute appendicitis, a number of 148 were preoperatively assessed by abdominal ultrasound and were included in study (mean age of 28.9, 45% men). We tried to correlate the ultrasound findings (visible appendix) with high white blood cell count and histopathological exam. Ultrasound results were dichotomized, with a non-visualized appendix considered as a negative examination.

The sensitivity, specificity, positive predictive value, and negative predictive value for ultrasound were 25%, 95%, 70.6%, and 72.5%, respectively, without significant age or gender differences.

Conclusion: Ultrasound may be a useful tool for evaluating patients with suspected appendicitis, regardless of age or gender, and should be the first choice of imaging modalities. Combining ultrasound with white cell blood count may reduce the costs of imagistic investigations and avoid several unnecessary admissions for in-hospital monitoring.

ID 19 Postoperative Outcome in Laparoscopic Suture of Perforated Ulcer

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Introduction: Despite efficient medical treatment of ulcers with proton-pump inhibitors, there are still a lot of patients presented as perforated ulcer. Laparoscopic management in emergency conditions is a feasible option.

Objective: We wanted to evaluate the performance of laparoscopic management in emergency conditions for perforated gastric and duodenal ulcers.

Material and method: We conducted a retrospective cohort study on patients with acute abdomen and pneumoperitoneum caused by perforated ulcers, admitted in our clinic during the years 2017 and 2018. We evaluated the postoperative outcome and the complications.

Results: Although complications of ulcers are not quite frequent nowadays, we treated surgical, in our clinic 44 patients with perforated ulcer in 2 years (2017-2108) (mean age of 42.7, 75% men). 15 of them (34.1%) were sutured laparoscopically, the rest by open surgery. We analyzed and compare the complications and postoperative outcome in both groups (treated open and laparoscopically).

Conclusion: Given the young age of most patients, laparoscopy seem to be more appropriate, being a minimum invasive method. Laparoscopy is a safe method to manage perforated ulcers, with no higher rate of complications and the advantages of rapid surgery recover and social reinsertion. Laparoscopic suture of perforated ulcers should be whenever possible, the first therapeutic option.

ID 104 Placental Pathologic Modifications in HIV Positive Pregnancies

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Objectives: HIV is still one of the worldwide main causes of mortality and morbidity due to an infection. In 2018, 1 million patients died because of HIV infection, 300.000 of which were patients under 15 years old. UNAIDS implemented the fast track targets, with the sole purpose of decreasing the number of new infections and better management of the existing ones. In the field of obstetrics, the main preoccupation until now has been to lower as much as possible the vertical transmission. Nowadays studies are concentrating more on the fetal complications induced both by the viral infection and its treatment. The purpose of this study is to asses placental pathologic modifications from HIV infected patients and their possible link to fetal complications.

Materials & Methods: The study is based on the pathologic assessment of the placentas from 50 HIV positive patients that delivered via caesarean section in „Prof. Dr. Panait Sirbu" Obstetrics and Gynecology Clinical Hospital, Bucharest, from February 2018 to May 2019.

Results: Most patients are long-term survivors, infected in 1987-1990 during the first years of life, that have used during this period of time multiple lines of treatment. Although the patients are well managed in terms of CD4 count, treatment compliance and stage of disease, higher rate of low weight for gestation age was observed when compared to a non-HIV group.

Lower placental weight, area and thickness were seen in the HIV group, with microscopic vascular modifications being the primary pathologic findings.

Conclusions: Placental pathologic modifications in HIV pregnancies are linked both to viral infection and antiviral treatment.

Low viral load, high CD4, adherence to treatment and progesterone supplementation were linked to a lower risk of fetal complications.

ID 119 Prognostic Factors for Histopathologic Sarcoma Types

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There are more than 100 histopathologic subtypes of retroperitoneal sarcomas, but a clear characterization of specific prognostic and risk factors at least for the most frequent of them is currently missing. In the light of the local aggressiveness of these tumors and precarious evolution of retroperitoneal tumor patients even after radical surgery, a better knowledge of biological particularities of various sarcomas of surgical significance would be an important therapeutic gain. The aim of this study was to individualize specific and common features of retroperitoneal sarcomas for a better therapeutic approach.

Patients and methods: We carried on a retrospective study on a group of 162 patients with retroperitoneal neoplasias that were operated in our Surgical Clinic, along a period of 15 years. All recorded data of the patients, preoperative investigations, operative and histopathologic findings and postoperative evolution were analyzed in order to individualize specific and common prognostic for various sarcoma subtypes.

Results: Retroperitoneal sarcomas represented 61.8% of all malignant primitive retroperitoneal neoplasias. Radical surgery was achieved in 43.6% of sarcoma patients and represented the main positive prognostic factor for all types of sarcomas. The most frequent sarcoma subtypes were fibrosarcoma, undifferentiated sarcomas and liposarcomas. The most aggressive histopathologic subtypes appeared to be condrosarcoma, carcinosarcoma and undifferentiated sarcomas that expressed histopathologic intratumoral heterogeneity and involved more frequently major blood vessels, impeding radical resections; also, these histopathological subtypes were statistically associated to higher rates of local recurrence.

Conclusions: The occurrence of higher rates of recurrences in certain histopathologic retroperitoneal sarcomas underlines the necessity to follow-up more attentively this category of patients to detect and reresect precociously tumor locoregional recurrences. The predilection of certain sarcoma histopathologic types for development around major retroperitoneal blood vessels indicates a biological feature that should be carefully considered in the preoperative planning and further studied to individualize their treatment.

ID 121 Retroperitoneal Tumor Surgery and Its Limitations

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Surgical resection with negative margins is currently the only acknowledged treatment for primitive retroperitoneal tumors. However, these tumors raise extremely difficult problems of surgical approach, because of their significant dimensions, involvement of vital structures and development into an inaccessible anatomical space. The aim of the present study was to analyze the degree and type of vascular involvement by primitive retroperitoneal tumors and to evaluate its significance for patient survival.

Patients and methods: 62 patients with primitive retroperitoneal tumors that were operated on in our Clinic, for a period of 15 years, were included in the study. Medical imaging and operative records were carefully reviewed and a characterization of the degree of vascular involvement by the tumors was performed. The level and extension of the tumor vascular involvement was entered into the analysis of putative prognostic factors.

Results: Surgical operations of radical intent represented 41.1% of all the performed interventions. Survival analysis individualized two major prognostic factors for the operated-on patients: histopathologically confirmed radical surgery and tumor involvement of important blood vessels, as it represented the main impediment for surgical radicalness and was statistically more frequently associated to major postoperative complications. Tumor involvement of more than two vascular structures was significantly associated to nonradical interventions and a poorer patient prognostic. The involvement of the middle segment of the inferior vena cava associated a better prognostic than that of the superior or inferior segments.

Conclusions: The complexity of retroperitoneal tumor surgery determines an elevated level of preoperative planning, postoperative care and follow-up. As tumor implication of important blood vessels significantly limits the rates of radical surgery, a thorough preoperative description of the degree and types of vascular involvement should be obtained, preferably by 3D CT reconstructions, along with a consideration of vascular resections and reconstructions to ensure better patient survival.

ID 122 Retroperitoneal Tumors and Renal Proximity

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Currently, there is scarce description of the triggering mechanisms leading to the initiation and growth of retroperitoneal neoplasia, a heterogeneous group of extremely aggressive tumors that partially explains the dismal therapeutic results. Some authors have recently suggested that retroperitoneal tumors might directly originate from the adipose perirenal tissue of the retroperitoneum, particularly in obese patients. The aim of our study was to evaluate primitive retroperitoneal tumor proximity to perirenal adipose tissue and to determine whether such an association is significant in terms of tumor resectability and patient survival.

Patients and methods: The study was conducted on a group of 162 patients with retroperitoneal tumors, operated in our clinic along a period of 15 years. Medical imaging data, 3D reconstructions of the tumors and their adjacent structures, operative and histopathologic data were used to evaluate primitive retroperitoneal tumor relationship to renal adipose tissue; also, renal or ureteral proximity of the tumor were evaluated as putative prognostic factor in patient survival analysis.

Results: Retroperitoneal tumor proximity or direct invasion into the kidney/perirenal tissue was recorded in only 32.1% of the cases, while ureteral involvement in 28.6% of the cases. Left kidney was more frequently involved than the right kidney, while bilateral involvement appeared in 33% of the cases. However, in survival analysis neither kidney/ureteral involvement nor the resection of such organs proved to be significant prognostic factors. Kidney or ureteral tumor involvement did not statistically limit surgical radicalness, but required a complex operative approach. Instead, patients that presented preoperative kidney dysfunctionalities had lower survival rates than the others.

Conclusions: Primitive retroperitoneal tumors still escape our understanding and exhibit a unique progression model between tumors. Understanding the significance of the proximity of these tumors to various organs is vital in order to improve their treatment and gain insights into their development.

ID 124 Gallstones Complicated with Biliary Ileus and Obstructive Jaundice – Case Report

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Introduction: Biliary ileus is an uncommon cause of mechanical bowel obstruction, caused by intestinal impaction of a gallstone that enters the bowel via a cholecysto - enteric fistula. Mirizzi syndrome is another rare complication of chronic cholelithiasis and consists in obliteration of the infundibulum of the gallbladder or cystic duct caused by the impact of one or more gallstones in these anatomical structures, resulting in partial or complete obstruction of the common hepatic duct.

Material and Method: We present the case of a 41-year-old female patient treated in our Clinic in May 2018. The patient was admitted for upper quadrant abdominal pain, nausea, vomiting and absence of intestinal transit, symptomatology that occurred two days prior to admission. Laboratory tests showed leukocytosis, increased bilirubin value and kidney dysfunction. Abdominal ultrasound examination revealed large stones in the gallbladder as well as ileus, and abdominal radiography showed multiple air-fluid intestinal levels. Initial conservative treatment led to decreased bilirubin levels, but did not influence the resumption of intestinal transit. Abdominal computed tomography confirmed intestinal obstruction, revealing an obstructive biliary calculus located in the last part of the ileum and showing biliary dilation and pneumobilia. Surgical intervention revealed a cholecysto-duodenal fistula, a gallstone blocked in the cholecystic infundibulum, making compression on the common bile duct and obstructive gallstone impacted in the terminal ileum. Dissolution of the cholecisto-duodenal fistula, suture of the duodenum, cholecystectomy and enterotomy with the extraction of the ileum gallstone were performed. Postoperative evolution was uneventful. The pathological examination of the surgical specimen showed an unspecific ulcerative chronic lymphocytic cholecystitis with areas of intestinal metaplasia.

Conclusion: Although biliary ileus is a high mortality pathology and its association with obstructive jaundice significantly aggravates patient's evolution, early diagnosis and appropriate treatment have led to a favorable prognosis in this case.

ID 138 The Surgical Management of a Case of Tracheoesophageal Fistula Developed after Tracheostomy and Prolonged Mechanical Ventilation

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Introduction: Postintubation tracheoesophageal fistula (TEF) is a rare but severe complication found in patients that require prolonged mechanical ventilation. It is induced by mucosal ischemia/abrasion of the posterior tracheal wall caused by the overinflated cuff of the endotracheal or tracheostomy tube that is almost always in contact with a rigid, wide-bore nasogastric tube used for feeding or aspirating the gastric content.

Material and methods: We present the case of a 68 year old female patient who underwent major surgery for a perforated duodenal ulcer with a complicated postoperative evolution with respiratory distress that required a prolonged intubation and tracheostomy. After 30 days from the first surgery, the patient developed a tracheoesophageal fistula (TEF). TEFs secondary to tracheal cuff related injuries usually become symptomatic within 4 weeks. Usual manifestations in nonventilated patients include uncontrolled coughing after swallowing, breathing difficulty, repeated pneumonia and weight loss. This patient only accused coughing after swallowing. For this pathology, endoscopy is the best diagnostic method and bronchoscopy with methylene blue instillation also identifies the defect. The bronchospcopic exam for our patient localized the fistula in the cervical trachea, just below the tracheostomy cannula.

Results: Surgical treatment is standard and the operation is the only solution for these patients. Usually, fistulas are large in size and eventually, detected late having a fistulous opening that is well epithelialized. This makes the fistula actually impossible to close spontaneously and through conventional methods. The moment of the surgery is vital in the management of this pathology – the earlier it is done, the better the outcome.

Conclusions: While smaller fistulae may heal spontaneously, large TEFs are treated surgically. The surgical treatment includes the single-staged fistula repair with or without tracheal reconstruction.

ID 144 Using Provisional Inter-Fragmentary Screw Fixation in Complex Proximal Humeral Fractures: Surgical Technique with Case Series

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Objective: Complex proximal humerus fractures pose difficulty for adequate reduction and optimal fixation, moreover with an increase in fragment number. Osteosynthesis material has been utilized in the past for provisional fixation prior to plate fixation. The current paper illustrates this type of technique.

Method: A group of 5 patients referred to the Clinic. The fracture patterns were evaluated using Digital Radiology or Computed Tomography. Open reduction and internal fixation was used, with intent of relative stability for the extra-articular fracture fixation. All patients benefited from the delto-pectoral approach with variable distal extension as needed. For inter-fragmentary fracture fixation, screws were used for provisional fixation prior to final plate fixation. After surgery, the patients were issued a total of 6 weeks of sling immobilization with passive range of motion exercises commenced at 4 weeks followed by another 3 weeks of active range of motion.

Results: Clinical and radiological follow-ups were conducted at 6 and 12 weeks after surgery, revealing minimal pain, global preservation range of motion below the shoulder and radiologically stable implants.

Conclusion: Provisional inter-fragmentary screw fixation prior to final plate attachment aids in definitive fracture fixation as seen at follow-up and should be considered in all cases of complex fracture patterns.

ID 170 Pyogenic Granuloma of The Lower Lip Mucosa in Childhood – an Uncommon Location

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Objective: Pyogenic granuloma is a vascular inflammatory hyperplasia involving the skin and oral mucosa, often associated with local irritation or trauma, or with pregnancy. Intraoral location usually affects the gingiva, but tumoral aspect can be misleading, especially in extragingival locations. Thorough assessment and diagnosis is therefore important for ensuring the proper treatment.

Material and method: We report the case of a 11 year old boy who came to our Plastic Surgery Department for a consult regarding the growing and bleeding tumor of his lower lip mucosa. The tumor measuring about 1 cm was noticed during dental procedures and labeled as "hemangioma". It was growing for several weeks and apparently associated with minor but repeated mucosal trauma. Although the tumoral location was not common, the patient history suggested a diagnosis of pyogenic granuloma.

Results: After a dermatologic assessment which proposed a differential diagnosis with oral papilloma, a soft tissue ultrasound was carried out, revealing features consistent with a vascular tumor. Considering the anatomical location and patient's age, the tumor was excised under general anesthesia, and the defect was closed directly with absorbable sutures. Three weeks after surgery the mucosa had a healthy appearance, without signs of impaired healing or of tumor recurrence. The histopathological exam finally confirmed the clinical diagnosis of pyogenic granuloma.

Conclusions: There are several types of soft tissue solid or vascular tumors that can be mislabeled between themselves and the diagnosis of hemangioma is wrongly used for various vascular anomalies. In our case, despite of not being placed on the gingiva or on the facial skin, the clinical aspect, together with the tumoral growing pattern and the history of repeated trauma, led us to the correct diagnosis and treatment. Surgical excision completely removes the pyogenic granuloma and ensures rapid and esthetically convenient healing, without complication or tumor regrowth.

ID 179 Particularities of Mortality by Trauma in Europe

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Trauma is one of the most common causes of death in young people, with cases such as alcohol or narcotic drugs being incriminated. In an attempt to analyze the mortality profile due to traumatic events, we conducted an interrogation of World Health Organization's databases on mortality and alcohol consumption, comparing the countries of Europe and correlating the various parameters. Among the first findings we mention the decrease in the percentage of death by trauma as well as the lack of a significant correlation between alcohol consumption and the incidence of trauma as a cause of death.

ID 192 A New Score in Surgical Management of Femoral Hernia

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Introduction: Femoral hernia has a high incidence in elderly, female overweight patients who present in emergency with complications of hernia, most common being strangulation. Diagnostic delay and comorbidities associated with this hernia significantly increase mortality and perioperative morbidity. Material and Method

Based on a retrospective study of 116 patients who underwent emergency surgery for irreducible femoral hernia, we consider it necessary to have a preoperative score, consisting of a series of parameters, advocating the laparotomy as the surgery approach for this patients. Of the 116 patients included in the study, 84.48% were females. Average age: 72 years. Average hospitalization duration: 6.4 days. Comorbidities present: arterial hypertension (18.1%), heart failure (12.93%), atrial fibrillation (5.17%), COPD (3.44%). In 26 patients, the preoperative diagnosis was intestinal obstruction. Laparotomy was performed in 27 patients (23.27%), and in 26 cases (22.41%) there was a strangulated bowel, for which 17 patients (62%) underwent intestinal resection. In 4 cases reintervention was needed and intestinal resection and drainage were made. There were 7 deaths (6.03%). Subombilical laparotomy only decreases the risk of intestinal injury in the treated herniar sac, allows easy reduction of strangulation, progressing and checking of intestinal viability, involves a single incision, decreases surgery time, allows treatment of single/bilateral hernia, diagnosis and treatment of other concomitant lesions, can be performed under spinal anesthesia. Parameters required to determine the score: sex, age >72 years, clinical irreducible hernia, cardiac pathology, ultrasound/tomographic signs of an irreducible femoral hernia, hydro-aeric levels on plain abdominal radiography, leukocytosis, previous hernia surgery on the same side, ASA score.

Conclusions: The existence of an operative score that would lead to the need for a subombilical laparotomy as single approach in femoral hernias may help reduce the risk of reintervention and morbidity / mortality associated with emergency surgery of complicated femoral hernia.

ID 196 Altemeier's Procedure for Gangrenous Rectal Prolapse

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Introduction: Acute rectal prolapse is a very rare surgical presentation. Related sepsis to rectal prolapsed gangrene is associated with increased morbidity and mortality. Although there are many options for the surgical treatment of chronic prolapse, strangulation and necrosis of the prolapse is difficult to manage and has poor outcome.

Material and method: We present a 67-year-old female patient, with a history of chronic constipation associated with depressive syndrome. The patient's history discovers a chronic rectal prolapse with two years of suffering and multiple incarcerations. Clinical examination reveals a underweight (BMI - 17 kg/m^2) patient with altered condition, fever (39°Celsius), tachycardia, with oliguria. Perineal examination shows strangulated rectal prolapse with necrosis. Leukocytosis (WBC – 23.000 / mm^3), VSH – 70 mm/h, PCR - 30 mg/dl, and also presepsin – 1500 pg/ml sustain sepsis. Spinal anesthesia and rectosigmoidectomy of the Altmeier type were chosen. The perirectal abscess of the prolapse gangrene was drained and two surgical drains were placed in the pelvisubperitoneal space. Results

The postoperative outcome was initially good, with normal bowel function, but followed by a sigmoid perforation as a lesion of a surgical drain. Surgical reintervention was performed. We found a sigmoid colon perforation with local peritonitis. We performed resection of the affected sigmoid, end- colostomy, lavage and drainage. The patient was discharged 10 days postoperatively.

Conclusions: Treatment of the gangrenous rectal prolapse is not facile. Among surgical options available, Altemeier procedure is feasible as an emergency treatment of this acute pathology, although it may present complications, quoted in studies. Also, we state that using spinal anesthesia when performing this procedure could be beneficial.

ID 204 Methods for Evaluating Students after General Surgery Fellowship – Case Study

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Throughout the faculty of medicine, one of the fellowships with the largest weight, both as a duration and as a component of the annual average in the 4th and 5th years, is general surgery. At the end of this fellowship, an assessment is required to reflect both the amount of information the student has accumulated during this period and the degree of understanding of these notions. Thus, over time, there have been several evaluation methods both orally and in writing - with open answers or grid type. Based the fact that evaluation has to be as faithful, transparent and objective as possible, the standardization of the assessment in the surgical department in the form of a grid type written exam (60% simple complement and 40% complement multiple) has been achieved in recent years. Looking to analyze the assessment modes based on the above criteria, we have put the balance for two series of students, the oral assessment, the correction of the grids in all / nothing manner and the correction of each item in the grid. The obtained results reveal a correlation between the three types of evaluation, but also some particular situations in which the evaluation of item-level responses proved superior in terms of the correctness of the evaluation.

ID 206 Observations on the Trend of Scientific Article Citations in Medicine

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Academic publishing has seen an explosive growth both at the authors' level, by the number of articles published annually increasing exponentially, and also by reader's level by implementing the concept of Open Access. This has led to the need of identifying some parameters as appropriate as we can for assessing the impact of academic research and scientific publication. Thus, Scientometry has gained in recent years a boom proportional to the growing interest in academic writing. At the same time, academic advancement and getting funds are increasingly based on these parameters, and researchers are interested in increasing these indicators as quickly and naturally as possible. The observations of recent studies have identified large differences in the way of citation from different scientific fields. Based on these arguments, we analyzed how vary the first 100 most cited articles indexed in Web of Science in the last 10 years, trying to understand the mechanisms that increase the (citation level) of an article and the particularities in medicine.

ID 218 The Plastic Surgeon's Approach for Stevens-Johnson Syndrome – a Case Report

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Objective: Stevens-Johnson syndrome (SJS) is one of the severe forms of cutaneous adverse drug reactions. These reactions, varying from simple pruritic eruptions to potentially lethal events, are an important cause of iatrogenic morbidity and mortality. In SJS mouth, eyes, skin, genitalia, the intestinal and the respiratory tract can be touched. It is a life threatening condition and a public health issue. The aim of this paper is to present the therapeutic management of a patient with SJS, in the plastic surgery department.

Method: We report a case of a 64-year-old female presented to the Department of Plastic Surgery of the „Prof. Dr. Agrippa Ionescu" Emergency Clinical Hospital with big blisters on the thorax with clear liquid, purpuric eruption all over the body, macules on the abdomen with tendency to coalescence. The lips and the oral cavity presented ulcerated lesions with impossibility of eating. Moreover, she had conjunctivitis and eyelid edema. The cutaneous lesions were treated with methylen blue solution in another medical department.

Results: The patient was treated in the intensive care unit as a patient with partial-or full-thickness burns. General bath was done in aseptic conditions every day. The blisters were evacuated and the lesions were treated with oxytetracycline. Deep lesions of the thorax were dressed with silver nitrate. She was haemodynamically stable, but she needed oxygen, but not intubation. The patient fully recovered after 21 days of hospitalization.

Conclusions: We highlight this case due to the fact that SJS is a rare syndrome that affects approximately 1 or 2/1000000 annually. Due to the high rate of mortality, the management of treatment of the patients with SJS is vital. A rapid diagnosis, identification of the causative drug and supportive care in an intensive care unit are essential.

ID 219 Delayed Presentation of Foot Burns in Children – Impact on Treatment and Distant Results

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Objective: Foot burns represent a challenge for the plastic surgeon, because they tend to have longer healing periods compared with other anatomical areas. This feature has also impact on the scar formation and on long term joint functionality. Additionally, delayed presentation impairs healing and local range of motion, even in children. Considering this, local care has to be carefully planned, using surgical excision and skin grafting whenever necessary, and also a thorough long term rehabilitation program, in order to prevent functional disabilities and to offer the patient a good cosmetic result.

Material and method: We present the case of a 12 year old boy who came to our plastic surgery and burns department two weeks after having suffered a deep partial thickness scald burn to the dorsal part of his right foot, involving about 2% TBSA, caused by hot cooking oil. The wound showed signs of local infection, covered by necrotic debris, with no potential for spontaneous healing. Previously, the patient did not receive specific burn care, except for neomycin/bacitracin ointment occasional application, without occlusive dressing.

Results: Taking into consideration the time elapsed since the burn and the foot local aspect, the patient was admitted and the burn eschar was surgically excised the next day. The defect was covered with split thickness skin graft, which showed complete graft take two weeks later. After postoperative healing, the functional rehabilitation program started, aimed at preventing scar retraction of the first three toes. We used a combination of massage, silicone sheets, compression garments, stretching and splinting. Functional assessment of metatarsal-phalangeal joints range of motion 6 months after discharge showed no contractures or joint limitations.

Conclusions: Despite of delayed presentation, correct surgical approach, multimodal rehabilitation program and long term follow up can ensure good healing, functional and cosmetic, for foot burns in children.

ID 220 Evaluation of Postoperative Pancreatic Fistula According to ISGPF Criteria after D2 Gastrectomy in a High Volume Center

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Background: Literature regarding the incidence and the short and long term impact of the postoperative pancreatic fistula following D2 gastrectomy according to ISGPF criteria in European centers is scarce. The aim of this study was to assess the incidence of the pancreatic fistula and its impact on the postoperative morbidity following D2 gastrectomy.

Methods: All patients from January 2002 until December 2017 who underwent a D2 gastrectomy at Fundeni Clinical Institute were identified from hospital records and introduced in double perspective (starting with 2012) database. Statistical analyses was performed in order to identify potential risk factors for the postoperative pancreatic fistula and also weather if it has an impact on overall survival.

Conclusions: We hypothesized that the postoperative pancreatic fistula correlates with the number of lymph nodes retrieved from groups 8a, 9 and 11p. Results and other risk factors will be presented.

ID 229 VATS – a Modern Approach for Lung Cancer Resection

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Objectives: Video assisted thoracic surgery is a modern treatment approach for benign or malignant pulmonary lesions.

Methods: In our paper we would like to present a review of the literature concerning the quality of the oncological VATS resection and an audit of our VATS experience.

The benefits of VATS refer to: reduced thoracic pain after surgery, reduced length of hospitalization, rapid social and economic reintegration, quick recovery after surgery and a possibility of rapid onset of the adjuvant chemotherapy.

Results: In this paper we discuss also about the oncological aspect of VATS compared with open surgery – lymph node dissection or sampling, trocar port or pleural seeding problem, possibility of the detection of other intrapulmonary nodules.

Conclusions: Overall, we sustain that video assisted thoracic surgery involve lower morbidity and at least same oncological results as open surgery.

ID 230 Strangulated Diaphragmatic Gastric Hernia – Uncommon Postoperative Complication in a Patient Who Underwent Radical Abdominal Hysterectomy

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Objectives: We present the case of a 70-year-old patient, who was known with irradiated cervical cancer and was admitted in our Clinic for the surgical stage of the oncological treatment.

At 48 hours after radical abdominal hysterectomy, the patient's condition deteriorates rapidly, with the onset of atrial fibrillation, dyspnea.

Methods: An emergency CT-scan reveals extrahiatal herniation of the stomach in the thorax. The endoscopy shows intense ischemia of the gastric mucosa and hemorrhage.

Emergency surgery occurs which reveals a transdiaphragmatic herniated stomach, ischemic and close to perforation.

Frenotomy, hernia reduction, phrenoraphy, total gastrectomy with Roux-en-Y esophago-jejunostomy are needed.

Results: The postoperative evolution is slow, the patient being discharged after 27 days.

Conclusions: In conclusion, diaphragmatic hernia has an absolute surgical indication, regardless of symptomatology, and we recommend a closer interdisciplinary communication.

ID 234 The Role of Imagistic Investigations in Difficult Incisional Hernias

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In abdominal wall surgery, difficult incisional hernias are a paramount importance. Up to 40% of the laparotomies lead to the occurrence of incisional hernias whose surgical resolution is often difficult. Although the European Hernia Society has tried to standardize the classification of these parietal defects, there is significant debate in literature, both regarding their evaluation and their management. The role of evaluating these parietal defects through imaging investigations is becoming more and more discussed. The classification criterion is based on the tomographic evaluation of these patients, an evaluation which should specify the diameter of the defect and the percentage of abdominal viscera in the hernial sac, outside the abdominal cavity. Preoperative management techniques also require the use of imaging methods, such as botox injection under ultrasound control. Therefore, we are addressing the following question: Which is the role of imagistic investigations in the management of difficult incisional hernias? The work is based on a literature review made in Web of Science, Scopus and Pubmed databases.

ID 235 Particularities of the Measurement of the Intra-Abdominal Pressure in Patients with Difficult Incisional Hernias

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Difficult incisional hernias represent a particular category of post-incisional parietal defects, whose operator management is often very difficult and associated with multiple postoperative complications. One of the most common consequences is the development of intra-abdominal hypertension syndrome which is characterized by increasing the intra-abdominal pressure following the exaggerated tension of the abdominal wall during surgery. Monitoring this parameter is essential in all patients to prevent the occurrence of this syndrome and its evolutionary consequences with fatal potential. The literature describes a multitude of methods of measurement, most often applied to other pathologies that may entail a predisposition to the compartment syndrome - trauma, burns and pancreatitis. This work presents the particularities of measuring and monitoring intra-abdominal pressure in the patient with difficult incisional hernia, based on a literature review in WebofScience, Scopus and PubMed databases.

ID 248 Cross-Talk between Endometriosis Lesions and Immune Cells/Nerve Fibers Through Fractalkine/CX3CR1 Pathway

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Objective: The chemokine fractalkine (FKN) has been previously demonstrated to be involved in certain forms of neuropathic pain, but recently it has been proposed as a key factor in promoting and maintenance of hyperalgesia and central sensitization in endometriosis. More evidence suggest that eutopic endometrium inherent abnormalities that could be the primary defect in endometriosis. The objective of this study was to evaluate the role of FKN in endometriosis progression and pain generation in early onset.

Method: This review is aimed at bringing new perspectives for endometriosis pathogenesis, to provide a better understanding of pain development and disease progression. Electronic search of published related articles in MEDLINE and EMBASE databases was performed, using keywords such as "fractalkine", "FKN", "endometriosis", "CX3CR1".

Results: FKN (also known as CX3CL1) is a unique member of CX3C class of chemokines that binds to CX3CR1 and activates a cascade of events, such as recruitment and adhesion of leukocytes. Studies showed that high levels of FKN significantly promote eutopic endometrial stromal cells (ESCs) proliferation and invasion, by inducing M2 polarization, while upregulating the expression of Bcl-2, MMP2, and MMP9. As a neuronal chemokine, it was also proved to mediate communication between dorsal root ganglia neurons and microglia, via pp38-MAPK, involved in nociceptive transmission. FKN was found to be highly expressed in macrophages, whilst its receptor CX3CL1 was overexpressed in the myelin sheath of the sciatic nerve. In contrast, studies demonstrated that lower levels of FKD are linked to infertility and immune-defense impairments.

Conclusion: Strong results support the FKN involvement in ESCs invasiveness, through M2 macrophages, enhancing the formation of endometriosic lesions. FKN/CX3CR1 might be one of the most important signaling pathways for peripheral hyperalgesia in endometriosis, which could be blocked using innovative treatment strategies.

ID 261 A Case of Secondary Multifactorial Infertility

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Introduction: The incidence of infertility has decreased significantly in late decades due to assisted reproduction techniques. However, this condition continues to involve important socio-economic, demographic and medical consequences. According to recent studies, the success rate of in vitro fertilization for cases of irreversible infertility is influenced by the associated pathologies.

Thus, the presence of major mutations of hereditary thrombophilia significantly reduces the success rate of *in vitro* fertilization, while bilateral post hydrosalpinx salpingectomy increases the rate of success compared to salpingotomy.

Materials and methods: The purpose of our paperwork is the presentation of a case of multifactorial infertility of a patient of 37 years and the evolution of pregnancy obtained by repeatedly attempts of in vitro fertilization.

Personal pathological history includes bilateral salpingectomy post extrauterine fallopian tube pregnancy, hereditary thrombophilia with major mutations and bronchial asthma.

The current pregnancy obtained after previous failures of assisted reproduction is complicated by the presence of an important coriodecidual hematoma in the first trimester, cervical-isthmic incompetence and premature childbirth by early membranes rupture and intrauterine growth restriction.

Results: The birth is decided by caesarean section at 29 weeks of gestation and extract living faetus, female, weight 1100g, APGAR index 6 to 1 minute. Intraoperatively, it is ascertained a septum in the uterus, with abnormal placental insertion, adherent to this level. Considering the refractory symptomatology of treatment, breakthrough bleeding in late confinement, three weeks postoperatively, it is decided to practice the embolism of uterine arteries, for haemostatic purposes.

Conclusions: The pregnancies obtained through assisted reproductive therapies associate an increased risk of premature childbirth and restriction of intrauterine growth. The relationship between multiple causes of infertility and their impact on the evolution of the obtained pregnancy remains still unknown.