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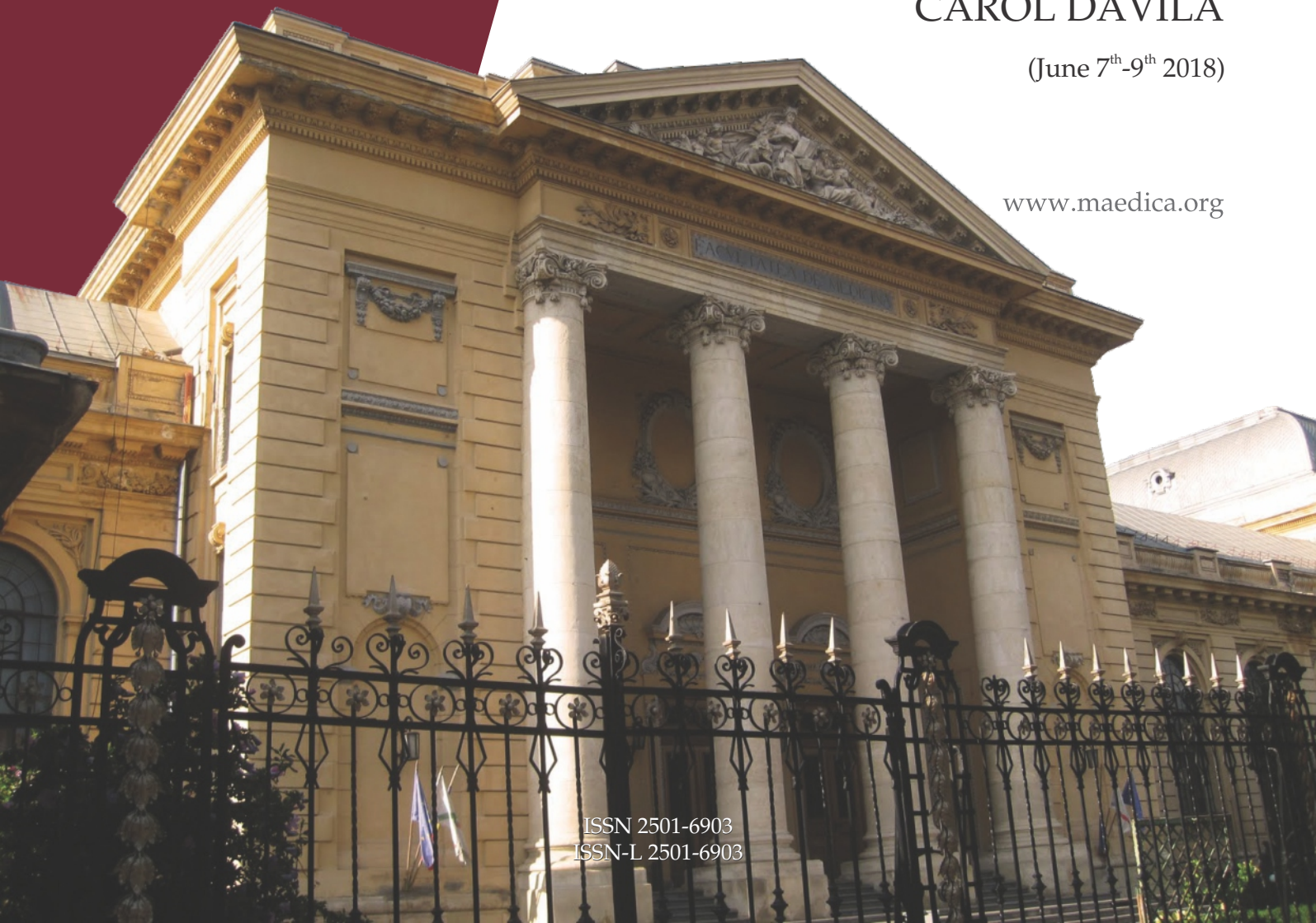

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SURGICAL SPECIALITIES

(ID 108) Matrix metalloproteinases: a possible new marker of the effectiveness of bariatric surgery

Radu Mihail Mirica[1,2], Mihai Ionescu[1], Alexandra Mirica[5], Octav Ginghina[1,3], Razvan Iosifescu[1,3], Adrian Rosca[2], Laura Gaman[4], Bogdan Marinescu[6], Nicolae Iordache[1,3], Leon Zagrean[2]

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Introduction: Matrix metalloproteinases (MMPs) are known ezymes involved in the modulation of extracellular matrix (ECM) and adipocyte and preadipocytes differentiation. Obesity implies a more or less rapid but generalized increase in adipose tissue (adipocyte and preadipocytes) and these processes generate abnormal ECM metabolism.

Aim: This study purpose was to determine if we can consider MMPs as a marker of effectiveness in bariatric surgery.

Materials and methods: The experimental study used 20 obese wistar rats (10 in control group and 10 in Study group).The study group had gastric by-pass for obesity, and there were analyzed the pre and post- operative MMP-2 and MMP-9. We compared the results in order to see if bariatric surgery modifies the MMPs status and if there is a correlation between the weight loss and the values of MMPs.

Results: The MMP-2 and MMP-9 activities were detectable, but MMP-2 activity was significantly higher than MMP-9. MMP-9 was strongly correlated with body weight parameters before surgery, as well as after significant body weight reduction as a result of bariatric surgery. There is a strong correlation between a greater weight loss and the values of MMP-2.

Conclusions: MMP-2 and MMP-9 are the two most important proteins of ECM involved in adipose tissue remodeling after bariatric surgery. Although we believe that more in-depth studies are required, MMPs may be considered a marker of the effectiveness of bariatric surgery and weight loss.

(ID 132) The importance of the intrauterine environment on longevity - gestational obesity as prediction factor for reduced lifespan in descendants

Diana-Elena Comandasu[1], Bogdana Virgolici[2], Maria Mohora[2], Claudia Mehedintu[3], Costin Berceanu[4], Mihai Mitran[1], Elvira Bratila[1]

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Objective: Obesity represents a common pregnancy comorbidity causing obstetrical, neonatal and long-term complications. We aim to present the consequences of gestational obesity on lifespan prognosis of the descendants, showing that longevity is highly correlated with the quality of the intrauterine environment.

Method: We studied the effects of maternal obesity on descendants' health in adulthood using 30 obese female Wistar rats. We induced rats the obesity by high-calorie high-fat diet administered by gavage and bread them. The pregnant females were then divided into a group receiving normal diet and another one that continued the fat alimentation during gestation.

Results: Obese rat females were followed throughout gestation and sacrificed at term, along with part of their pups, while another part were followed until natural death. We analysed the secretion of adipokines from maternal blood (leptin and adiponectin), lipid peroxidation levels by malonyl-dialdehyde and glutation as antioxidant factor from placental homogenates and maternal blood. Low levels of adiponectin and increased of leptin positively correlated with placental lipid peroxidation measured by elevated MDA and low levels of GSH. Placental histology showed dysplastic epithelial and mesoderm cells in the yolk sac, a higher density of inflammatory cells and congested vessels with thrombotic areas and glycogen trophoblast deposits in the fat group. Following the pups resulted from the obese mothers throughout their adulthood, we found that the medium lifespan of the ones from the fat diet group was significantly reduced compared to the normal one (by up to 30%). These rats were more predisposed to accelerate aging and chronic diseases.

Conclusions: Our study confirmed the important correlation between the biochemical and histopathological alterations of the intrauterine environment proven by placental dysfunction and the reduced lifespan of the descendants. Considering that, we suggest that the quality of the intrauterine life has major impact on longevity.

(ID 140) New trends in management of pregnancy and birth in HIV positive mothers – experience of Panait Sirbu Clinical Hospital of Obstetrics & Gynecology

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Objectives: HIV infection management has advanced in the last two decades, mostly by the development of antiviral treatment, reaching nowadays a point when life expectancy and quality of patients is the same as the general population. Romania is unique duet to its cohort of HIV infected patients during 1989-1990, the majority during childhood. The last statistics (September 2017) show 2971 female patients pertaing to the age group 25-29 years old. We find ourselves in front of another 10 years of births from HIV positive mothers. The main objective of the present paper is to compare date from all HIV positive pregnancies followed in the hospital, in order to create a correct protocol of management with the sole purpose of obtaining HIV negative new-borns.

Methods: Clinical Hospital of Obstetrics & Gynecology Panait Sirbu, Bucharest, is one of the main hospitals dealing with HIV patients, around 50 pregnancies and births being managed every year (25% of the pregnancies in Romania). The present paper reviews the last 23 years of experience, with 391 pregnancies being followed that resulted in 393 live new-borns.

Results: The main result is a total rate for vertical transmissions of 9.46% (37 HIV positive new-borns). A descending trend was noted during 2005-2011, with no cases of vertical transmission in the cesarean birth group. A higher rate of intrauterine growth restriction resulted when comparing with a non-infected group (32% vs 15%). The importance of HIV infection stage, viral load, type of treatment, treatment adherence were also studied.

Conclusions: This paper comes to highlight the new trends in the management of HIV pregnancies and births. A close interdisciplinary collaboration between obstetrics, infectious diseases and neonatology specialists is the only way to obtain a very low vertical transmission rate.

(ID 92) Concomitant lesions of frostbites and burns in a diabetic patient

Razvan Danciu, Cristina Nicoleta Cozma, Iulia Stan, Laura Raducu, Radu Cristian Jecan

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Introduction: Injuries caused by extreme temperatures either high or low have a major impact on patients, most commonly affecting extremities due to terminals blood supply and often lead to amputation.

Objectives: Our purpose was to present the mechanism of producing frostbite and their correct surgical management.

Methods: In this study is reported a case of a 42 years old man admitted in the Plastic Surgery department of Emergency Clinical Hospital "Prof. Dr. Agrippa Ionescu" with multiple injuries caused by exposure to extreme temperatures. The patient presented 3,4 degrees frostbites bilateral at the dorsal surface of toes and in the plantar zone.

These lesions occurred after prolonged exposure to snow followed by sudden warming of the feet. The patient ignored his injuries and presented to our department after three days, being known to have poorly treated diabetes and peripheral sensory neuropathy. Thermal video camera identified poor vascularization in the feet and radiography showed no changes in bone structure.

Surgical treatment was decided after 5 days, when the frostbite was delimited and was performed necrectomy and nail removal to favor epithelization. Postoperatively, chemical debridement was also realized in order to remove any remaining necrosis

Results: The lesions started to epithelize in the periphery and also in center, having a slowly favorable outcome but with no final follow up due to patient's refractory behavior.

Conclusion: Frostbite is a difficult to treat injury, especially when is combined with a consecutive burn. Surgical debridement is an important step in this pathology treatment and needs a waiting period of time for wound delimitation. Associated diabetes mellitus and peripheral neuropathy worsen local evolution and final outcome.

(ID 118) Therapeutic strategies after surgical management of Fournier's gangrene

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Introduction: Fournier's gangrene represents a serious life-threatening condition that affects mostly men from the fifth to seventh decades, frequently associated with diabetes mellitus. The surgical treatment is represented by aggressive excision of the necrotic tissue and control the spread of the infection. Fatality rates after Fournier's gangrene have decreased in recent years, leaving a larger number of patients in need of reconstructive surgery. Comparing the genital area to other areas of the body, the number of reconstructive options is not very high.

Material and methods: Patients treated for Fournier's gangrene in the urology department presenting tissue defects postoperatively were included for reconstructive procedures in our clinic. Several reconstructive techniques were used, such as: primary closure of the defects, skin grafts, local and regional flaps.

Results: Each case of surgical reconstruction benefits of a different technique, which we also used on several other cases. We discuss the advantages and disadvantages of the different types of reconstructions, the limitations, the indications and the final outcomes. The complication rates and their specificity are presented for each reconstruction type.

Conclusions: The life saving surgical intervention for Fournier's gangrene is a debilitating procedure that implies mandatory reconstruction in order to provide a maximal life quality. The main objectives targeted are: the complete closure of the defect, restoring of urinary and sexual functions, achieving a good quality of life. Unfortunately not all reconstructive modalities offer the same results and the most appropriate technique has to be chosen regarding the particularities of each case and the patient's desire.

(ID 60) Particular case of intestinal tumors

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Introduction: Small bowel tumors are rare and various histologically entities. Benign tumors are more frequent at young people and are represented mostly by adenomatous polyps. Malign tumors are more frequent at older people and are represented by adenocarcinomas, sarcomas, lymphomas and metastasis of other types of cancer. The first option of treatment is surgical excision with or without enterectomy.

Case presentation: We are exposing the case of a 62 years old female, who was transferred from Oltenita County Hospital to Surgery Department of Fundeni Clinical Institute. The patient presented to the ER of Oltenita Hospital for inferior digestive hemorrhage exteriorized as melena, asthenia and fatigability. Clinical exam reveals pale teguments and mucous, painless abdomen at palpation, present intestinal transit and normal stool aspect at rectal examination. From patient's personal history we retain a left brachial cutaneous melanoma excision, followed by chemotherapy. Laboratory test showed mild leukocytosis and mild anemia. For a presumptive diagnostic, has been made an endoscopy and a colonoscopy, with normal results, a Pansdorf exam which showed only an 8 mm lacunar imagine, with polypoid aspect on distal ileum.

To confirm the diagnostic has been made an entero-CT which showed a parietal thickening, with regular margins, located on a ileal loop, with maximum 15/13 mm lymphadenopathies. Parietal thickening is emphasized in the duodenum and jejunal loop, with multiple lombo-aortic lymphadenopathies (40/28 mm). These images suggested multifocal carcinoid tumors. Further, the tumors were excised. Intraoperatory, were find 5 tumors on first jejunal loop and one on a ileal loop. The intervention assumed two enterectomies with EE-TT anastomosis. The histopathologic exam revealed a poor differentiated carcinoma, but the immunohistochemistry exam set the final diagnostic: acromic melanoma.

Discussion: In this case, none of the imagistic investigations were able to lead to a macroscopic diagnostic. Only the immunohistochemistry exam established the diagnostic and estimated the prognostic.

MEDICAL SPECIALITIES

(ID 21) Evaluation of left ventricular systolic function in paediatric patients with acute lymphoblastic leukaemia

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Aims: The aim of this prospective, non-randomized, observational study was to evaluate acute and early-onset cardiotoxicity in children treated with anthracyclines, by assessing changes in left ventricular (LV) systolic function.

Methods: We included 46 children newly diagnosed in our Department with acute lymphoblastic leukaemia, undergoing standard chemotherapy, according to BFM-ALL IC 2002 protocol, plus minimal disease monitoring at days 15, 33 and 78. All patients had a signed informed consent form. Conventional and Tissue Doppler Imaging echocardiograms were performed before therapy initiation, at reinduction end and at one year after treatment start, including the following measurements: left ventricle ejection fraction (LVEF), LV outflow tract time-velocity integral (LVOT-TVI), tricuspid annular plane systolic excursion (TAPSE), peak systolic septal and lateral mitral annulus velocity (SS and SL) and peak systolic tricuspid annulus velocity (SRV).

Results: The age of our patients ranged between 2-16 years (mean 7.1, median 5.5) and the sex ratio male/female was 1.55. Patients were divided into 3 risk groups: 39 at standard and intermediate (total dose of doxorubicin of 152-240 mg/m^2), 7 at high risk (cumulative dose of 240-300 mg/m^2). LVOT-TVI decreased significantly after treatment in 82.6% patients and returned to pre-treatment values in 80.4%. TAPSE decreased in 54,3% patients and remained low at one year after diagnosis in 80.4%. SS decreased in 63% children after the total dose of doxorubicin, but increased in 58.7% after treatment end. SRV decreased significantly after therapy in 60.8% and remained low at one year after diagnosis in 70.1% patients. There were no significant differences in LVEF and SL measurements. In our cohort, we did not find any correlations between echocardiographic parameters and the cumulative dose of anthracyclines received by each patient.

Conclusions: In our group, we found that most of the parameters analysed decreased early after doxorubicin-based treatment and only half of them returned to pre-treatment values one year after diagnosis. Further prospective studies examining the pattern of LV systolic dysfunction in predicting outcomes in doxorubicin associated cardiotoxicity in paediatric patients are needed.

(ID 124) Nailfold capillaroscopy changes reflect endothelial activation and injury in patients with systemic sclerosis

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Systemic sclerosis (SSc) is a severe connective tissue disease characterized by vascular and fibrotic changes in the skin and internal organs. Pathogenesis of SSc includes early-onset vasculopathy with endothelial cell activation, microvascular injury and impaired angiogenesis.

Objectives: To determine the association of several molecules reflecting endothelial cell activation or dysfunction: E-selectin (E-sel), inter-cellular adhesion molecule-1 (ICAM-1), endothelin-1 (ET-1), von Willebrand factor (vWF) and interleukin-6 (IL-6), with distinct nailfold capillaroscopy (NFC) SSc patterns and with more severe disease.

Methods: Forty consecutive SSc patients attending our EUSTAR SSc clinic, aged [median(IQR)] 52(18) years, male gender 4/40(10%), diffuse cutaneous subset (dcSSc) 14/40(35%) were enrolled. Extensive clinical and NFC pattern assessment, as well as quantification of serum E-sel, ICAM-1, ET-1, vWF, IL-6 and C-reactive protein (CRP) were performed in all patients. Associations between vascular biomarkers and disease characteristics were evaluated by Mann-Whitney U-test and Spearman correlations.

Results: NFC "late" pattern was found in 21 patients, while 6 had "early" and 13 "active" NFC pattern. All 5 vascular biomarkers correlated with each other good to moderately, with r indices varying between 0.660 and 0.332, the only exception being ET-1 which did not correlate with E-sel. Good correlations (r 0.465-0.727) were also found between all 5 biomarkers and CRP. Patients with severe vasculopathy, reflected by the NFC "late" pattern, had higher levels of IL-6 (median 12.06 vs. 3.08 pg/mL, $p=0.001$), ET-1 (2.06 vs 1.59pg/mL, $p=0.029$), vWF (3284 vs 2730 IU/mL, $p=0.013$) and E-sel (52.6 vs. 42.3 ng/mL, $p>0.05$), compared to patients with NFC "early" or "active" patterns. There was a significant, negative correlation between lung transfer for carbon monoxide (DLCO) and E-sel, ICAM-1 (both $p<0.001$) and vWF ($p=0.013$). ET-1 was higher in patients with more severe disease (dcSSc, patients positive for anti-topoisomerase anti-

bodies and patients with a history of digital ulcers–all $p<0.05$).

Conclusions: Serum biomarkers reflecting endothelial cell activation and/or dysfunction are elevated in patients with more severe SSc-associated vasculopathy and correlate with CRP. Together with NFC data they might be used for assessing vasculopathy severity and identifying patients who would benefit from more aggressive vasoactive treatment.

Acknowledgement: This abstract is part of the QUANTICAP project, financed by UEFIS-CDI.

(ID 226) Superficial mycotic infections in a dermatologic ambulatory office: a descriptive cross-sectional study

Andreea Stoica[1], Roxana Nedelcu[2,3], Gabriela Turcu[3,4], Alice Brinzea[2,4], Elena Balasescu[2], Mihaela Antohe[2,3], Mihaela Balaban[3], Anastasia Hodorogea[2,4], Andreea Calinescu[4,5], Silvia Popescu[2], Laurentiu Stratan[2,5], Marius Stefan, Daniela Ion[2]

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Objectives: The aim of this study is to identify and to investigate the factors involved in superficial mycotic infections of the skin in Romanian dermatologic patients. We directed our literature research towards mechanisms favoring infections linked with host status, environmental features and types of infectious agents. Reviewing the medical information, we found no published data regarding fungal skin infections in Romanian population.

Method: Considering the lack of medical literature concerning the aimed objectives, we decided to design our study as a descriptive cross-sectional study, suitable for preliminary exploration. The study was conducted for one year in a dermatologic ambulatory clinic. Data including age, gender, the season of onset, suffering from systemic or cutaneous diseases, records of UV exposures, occupations and hobbies were selected.

Results: A total of 72 cases of cutaneous superficial mycotic infections were diagnosed at the dermatologic centre. The majority of patients (n=43) (60%) were males. Considering age, we noticed: the peak incidence is recorded in the age group 21-30 years of age, with 22 (30.5%) cases out of a total of 72 patients studied; the following age group in frequency is 31-40 years old, with a total of 16 cases (22%); the minimum age at which skin mycoses have been reported is 1 year and the maximum is 80 years. The most common infections were tinea (n=26)(36%) and candidiasis (n=26) (36%), followed by pityriasis versicolor (n=20) (28%). The main predisposing factors were particular anatomical features and seasonal UV exposures.

Conclusions: According to our preliminary observations, further insight into skin superficial mycotic infections may be both practically and theoretically important. On the one hand, we have to adapt preventive measures to the Romanian characteristics of sex, age, education level regarding skin care, environmental features. On the other hand, we consider of interest new studies to compare current epidemiologic trends of superficial fungal infections in Romania with different European and United States recent reports. The mentioned further research may contribute to better understanding of pathophisiology of skin infections, optimizing practical approaches and therapeutic appropriate management.

(ID 231) Preoperative management of two cases of pheochromocytoma diagnosed at different ages

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Background: Pheochromocytoma is a rare, catecholamine-secreting tumor that may precipitate life-threatening hypertension. About 30% of pheochromocytomas occur as part of hereditary syndromes and in approximately 10% of the cases the tumor is malignant. About half of these patients develop sustained hypertension, 45% present with paroxysmal hypertension, while 5-15% are normotensive.

Objectives: We report two cases of pheochromocytoma diagnosed in our institution at the same time. The first is that of a 66-year old woman presenting with paroxysmal hypertension with maximum systolic blood pressure (mSBP)=250 mmHg, with episodes that occur multiple times a day (especially when switching position from supine to standing) accompanied by dizziness, headache, high intensity chest pain and sometimes nausea. The second case is a 26-year old male patient presenting only with hypertension (mSBP=180/100 mmHg) and no other symptoms.

Method: Laboratory findings regarding the female patient showed elevated levels of plasma metanephrines (1350 pg/ml, N:10-90), plasma normetanephrines (1411 pg/ml, N:20-200), urinary metanephrines (392 ug/24h, N:50-350), urinary normetanephrines (4350 ug/24h, N:100-600), chromogranin A (302,8 ng/ml, N:20-100). The male patient had only elevated levels of plasma normetanephrines (1304 pg/dl, N:20-200) and urinary normetanephrines (1400 ug/24h, N:100-600) with normal levels of plasma and urinary metanephrines and chromogranin A. Screening for MEN 2 turned out negative for both patients, with a low calcitonin level and normal parathormone level. The female patient's CT examination showed a well-defined right adrenal mass (51/37 mm), with central necrosis. The male patient's CT examination showed well-defined left adrenal mass (28/26 mm). Alpha-blocker in the form of doxazosin was introduced for both patients with an initial dose of 2 mg, increased gradually to 14 mg/day, associated with beta-blocker (Propranolol 60 mg/day). The patients were stable with this treatment.

Results: The patients were referred for surgical treatment. At follow-up (after surgery) the mSBP of the female patient was 130-140 mmHg and the mSBP of the male patient was 120-130 mmHg without any medication. After the surgery both patients presented normal levels of chromogranin A, normetanephrines and metanephrines.

Conclusion: We present the cases of two patients with pheochromocytoma with different clinical presentation, but with the same preoperative management and outcome. Careful preoperative preparation is essential for uneventful surgery.

(ID 239) Brain metastases in lung cancer: experience of a referral emergency hospital in Bucharest, Romania

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Objective: 40-50% of lung cancers metastasize in the brain. We aimed to evaluate the characteristics (primary tumour site, imaging techniques employed for diagnosis, therapeutic regimens the distribution and size of metastases) of brain metastases due to lung cancer in a referral emergency hospital in Bucharest, Romania.

Methods: We conducted a retrospective study of brain metastasis (BM) cases diagnosed in our hospital in the last 3.7 years. Medical records were used to retrieve data and identify patients with BM.

Results and Conclusions: 53 patients were included in our study (60.38% males, mean age 63.02 years, range 40-85). 64.15% had no history of smoking. The primary tumor was pulmonary in 88.6% of cases (30.18% right lung, 24.5% left lung and 32.19% multiple sites). All patients underwent at least one CT scan and 37.73% one MRI. Other metastatic sites (adrenal glands 11.2%, liver 9.43%) were present in 47% of patients. 22.64% of patients had undergone chemotherapy, 16.9% radiotherapy and 28.3% neurosurgery. 52.8% of patients received corticosteroids and analgesics for the treatment of cerebral edema, with improvement in 41.5% of cases. Regarding the sites of BM, scanning techniques revealed the following distribution: right hemisphere (32.07%), bilateral (30.18%), left hemisphere (26.41%), cerebellum (9.43%) and lateral ventricles (1.88%). BM diameter range was 3.2 - 56 mm (mean value 23.93 mm). 32.08% BM had ≥20 mm (of which 41.17% had other secondary organ involvement). In 22.64% of cases, the pulmonary tumor and the BM were unilateral and on the same part of the body. Early detection and characterization of BM by neuroimaging techniques is invaluable in the therapeutic strategies for lung cancer today, especially since BM development is a negative prognostic factor and decreases median survival.

(ID 149) Predictors of readmission after an acute COPD exacerbation

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Objectives: A focal point in Chronic Obstructive Pulmonary Disease (COPD), exacerbations are associated with increased mortality, quality of life impairment, faster disease progression, and high cost of care. The objective of this study was to identify the factors that contribute to early and frequent hospital readmission and to assess the impact of exacerbations on the quality of life of patients with COPD.

Methods: This prospective cohort investigation included patients who were admitted for acute COPD exacerbation and followed up for one year after discharge. The data collected included information about lung function, previous hospital admissions, and sociodemographic factors. In addition, the following were measured both before discharge and after a year: Charlson Comorbidity Index (CCI), St George's Respiratory Questionnaire (SGRQ), and Hospital Anxiety and Depression Scale (HADS). The comparison between the parametric continuous variables was performed using the paired t-test and between the categorical variables using Fischer's tests. A simple logistic regression was used for the binary outcome prediction. Statistical significance (p) was set as less than or equal to .05.

Results: The study included 32 patients (18 males) with a mean age of 66.1 years and mean Forced Expiratory Volume in the first second (FEV1) 32.5% predicted. 15 patients had an exacerbation within the first six months post-discharge and 19 were readmitted at least once during the first year. Patients with two or more exacerbations in the previous year were significantly more likely to have another exacerbation in the first month post discharge (60%) than those with less than 2 exacerbations in the previous year (17.6%). FEV1 (OR=0.92 per percentage unit) and age (OR=0.92 per year) were independently associated with increased readmission rates in the first year post-discharge. The SGRQ Symptoms score (but neither Activity nor Impacts score) was worse during the exacerbation episode (mean difference=17.7).

Conclusions: A higher readmission rate was independently associated only with previous exacerbations, lower FEV1, and age among the wide range of potential risk factors considered. Episodes of COPD exacerbation were associated with a temporary alteration of Symptoms quality of life domain.

PHARMACY

(ID 209) The analysis of the in vitro release profiles of a BCS class 2 drug from soft gelatin capsules using the basket and reciprocating cylinder apparatuses

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Aims: The aim of the study was to evaluate the in vitro release profiles of a low-solubility, high permeability drug from soft gelatin capsules (two strengths) using two compendial dissolution apparatuses.

Materials: Two marketed soft gelatin capsule products in two dose-strengths were evaluated in vitro using the basket method and the reciprocating cylinder at two stirring rates. The experimental protocol was performed in triplicate and included a phosphate buffer medium (50 mM), degassed by filtration under vacuum. The volume was 500 mL for apparatus 1 and respectively 250 mL for apparatus 3. Samples of 5 mL were collected manually at 10, 20, 30, 45, 60, 90 and 120 minutes after the debut of the test. The basket method was applied at 75 and 100 rpm, whereas the reciprocating cylinder was used at 10 and 20 dpm. Disintegration of the gelatin shell was visually observed and the corresponding time was noted, for further correlation with the resulting lag intervals. The amounts of drug released at each sampling point was determined spectrophotometrically (first derivative approach).

Results: The experimental results outlined a reduced dependence of the in vitro release profiles on the stirring or immersion rate, with lag times correlate with the rupture phenomena. The dissolution of the drug was complete, but highly variable within the first 20 minutes. The mechanical stress had a major influence on the release, but the robustness and reproducibility of the methodology is questionable when applied for routine quality control purposes. The compendial apparatus 3 has an increased biorelevance, due to the low volume of aqueous media and its ability to simulate the in vivo shearing forces acting on the dose units. It represents a feasible alternative to disintegration equipment with additional assessment of the in vitro release profiles. However, lipid contents may generate variable spreading surfaces with consequent impact on the partition phenomena.

Conclusions: Both methodological approaches may be applied for the *in vitro* evaluation of the performance for soft gelatin capsules as typical special pharmaceutical dosage forms. The testing parameters must be adapted to the particularities of the composition and release mechanisms of each product.

(ID 185) The analysis of the discriminatory character and strength sensitivity of an in vitro drug release methodology developed for diclofenac diethylamine emulgels

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Aims: The aim of the study was to evaluate the batch-to-batch consistency and the relationship between the label-claimed contents and the in vitro release rates for marketed emulgel formulations containing 1.16 or 2.32% diclofenac diethylamine.

Materials: The *in vitro* drug release methodology was developed using the Hanson Microette static vertical diffusion cells (12 mL total volume), with an polysulfone membrane (Tuffryn, Pall Life Sciences, 0.45 microns) as a mechanical, inert support. The adsorption of the active pharmaceutical ingredient was previously screened at three concentrations level (6-60-120 ppm). The receptor media was hydro-alcoholic mixture (30% absolute ethanol in purified water, v/v), degassed by filtration under vacuum. The in vitro release tests were performed at 32°C in 6 replicated for two batches of Voltaren Emulgel 1.16%, respectively on one batch of Voltaren Forte 2.32%. Samples of 0.5 mL were manually collected for 6 hours and the diclofenac content was assessed using a validated chromatographic method. The release rates were calculated using the Higuchi model.

Results: The experimental results proved that the two batches of the same product (lower, 1.16% strength) were displaying similar in vitro performance. The calculated 90% confidence intervals for the individual test to reference slope ratio (analyzed for the time interval 0 to 180 minutes) were within the acceptance interval of 75 to 133.33%. Moreover, the conclusion was the same when the entire release profiles were used for the comparative assessment and correlated with previous results of microstructural assessments. With respect to the higher strength, the diffusion kinetics were adequately described by the same mathematical model, but the release rate was double. This confirmed that the state of aggregation of diclofenac diethylamine was the same, i.e. the drug was completely dissolved in the two phases of the semisolid matrix. This observation can be considered as a proof that the quantitative composition of the two strengths is probably proportional, whereas the manufacturing process is similar

Conclusions: The in vitro drug release methodology proved the batch to batch consistency of the lower strength of the reference listed drug, as well as the discriminatory character with respect to the label-claimed content.

(ID 184) The evaluation of *in vitro* release profiles of diclofenac from transdermal formulations using compendial approaches

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Aims: The aim of the study was to analyze the in vitro release profiles of diclofenac (equivalent to 10 mg sodium diclofenac/cm^2) from matrix (gel) or pressure-sensitive adhesive (PSA) transdermal systems using compendial approaches.

Materials: Several marketed gel and PSA type transdermal delivery systems were evaluated using compendial in vitro drug release equipment. A first approach was the use of paddle-over-disk (USP apparatus 5), in an adaption of the methodology recommended by US-FDA for diclofenac epolamine topical patches. A watch dish with a diameter of 6cm was used for fixing and immersing fragments of 23.33 cm^2, using a polytetrafluoroethylene mesh. The paddle was set in the standard position from the release-controlling surface (50 rpm, 900 mL, phosphate buffer pH=6.8, 32±0.5°C). In an alternative design, the extraction cells described in the European Pharmacopoeia were adopted, while maintaining all the experimental parameters the same. The quantitative analysis of diclofenac salts in the release medium was performed using a spectrophotometric method after appropriate dilution, using calibration samples of the sodium salt prepared from a methanolic stock solution. The mean in vitro release profiles were analyzed in terms of their variability and kinetics (fitting of the experimental data with usual mathematical model describing membrane controlled or diffusional processes).

Results: The experimental results indicated that the in vitro release profiles are highly dependent upon the experimental setup and the composition (intended mechanism) of the transdermal formulations. The PSA type drug products displayed first order release kinetics, with burst of the drug contents in the compendial medium during the initial 60-180 min. Gradual hydration of the membranes was followed by rapid depletion. The in vitro release pattern was completely different for the gel matrix. The hydration was slower and the formed semisolid barrier was in control of the release. The kinetics was higuchian, the square root model adequately describing all the mean profile. No significant erosion was observed, probably due to low stirring rate applied, but also to consistency of the gel barrier.

Conclusions: The applied compendial methodologies are discriminatory with respect to the composition and intended mechanism of release for transdermal formulations of diclofenac.

(ID 56) The impact of chronic inflammation on the redox status of serum proteins

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Objectives: The aim of this study was to assess the oxidative damage of proteins from serum and isolated lipoproteins of patients with high- and low-grade chronic inflammatory status: rheumatoid arthritis (RA) and type 2 diabetes mellitus (T2DM) subjects, respectively. Also, we wanted to determine if the atherogenic index is reliable in appreciating the oxidative burden of patients with a high-grade inflammation status.

Materials and Methods: Our study included 57 subjects from the "Ana Aslan" National Institute of Gerontology and Geriatrics and "Humanitas CD" Clinic in Bucharest, Romania. They were divided into three groups: a T2DM group (n=20), a RA group (n=20) and a control group (n=17). Routine biochemical parameters were determined from subjects' serum and also low and high density lipoproteins were separated with the heparin-citrate method and, respectively, the phosphotungstic acid-MgCl2 one. Further, advanced oxidation protein products (AOPP) and advanced glycation endproducts (AGE) were determined. Also, the atherogenic index of plasma (AIP) was calculated as the decimal logarithm of triglycerides to HDL ratio.

Results: Serum AGE and AOPP were significantly higher, compared to the control group, for both T2DM ($p<0.001$ and $p=0.002$) and RA ($p<0.001$ and $p=0.033$) patients, but similar in the two test groups ($p=0.279$ and $p=0.152$), although glycemia was notably higher in diabetics ($p<0.001$).

Positive correlations of AOPP with total cholesterol and triglycerides were observed in both T2DM ($P=0.017$ and $P<0.001$, respectively) and RA ($P<0.001$ and $P<0.001$, respectively) patients. AOPP of HDL was higher ($p=0,079$ for DM group and $p=0.096$ for RA group) and LDL was significantly higher in both study groups versus control ($p<0.001$ in both cases), with no notable difference between study groups.

AIP was significantly higher in DM patients compared to control ($p=0.019$) and to RA patients ($p=0,006$), with no significant difference between RA and control patients.

Conclusion: Our study found similar markers of advanced oxidation and glycation of serum proteins and lipoproteins between T2DM subjects and RA patients, although glycemic and lipid profiles differ significantly. Thus, our results underline the importance of qualitative assessments of serum lipoproteins in patients with high inflammatory burden for a better evaluation of their cardiovascular risk.

(ID 51) Designing and preliminary evaluation of chitosan/poloxamer in situ gels for ocular delivery of bupivacaine hydrochloride

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Previous studies have shown that associating a thermosensitive polymer (poloxamer 407) with a sensitive pH polymer (chitosan) has muco-adhesive properties and enhances the permeability of the active substance. Bupivacaine, a local anesthetic with amide structure offers the advantage of a long duration of action in ocular surgeries: cataract surgery, trabececulectomy, correction of refractive vices. Bupivacaine has good antimicrobial action, enhanced by the presence of chitosan, reducing the need of potentially irritating preservatives.

Objectives: A method for the in situ gelation of chitosan and poloxamer 407 was designed by exploiting the tendency of chitosan to form a gel structure at physiological pH and of poloxamer to form a gel at physiological temperature in order to increase the retention time of bupivacaine at the eye level and to reduce the naso-lacrimal drainage.

Method: Polymer mixtures of chitosan (0.3%) and poloxamer 407 (10%, 15%, 20%) were prepared. Bupivacaine hydrochloride (0.25%) was incorporated. The pH of the solutions was adjusted by neutralization with NaOH from 2.5 to 5. The superficial free energy of the ophthalmic gels and the contact angle where determined with a goniometric method, at room temperature (25°C) and at physiological condition (37°C). The wettability properties were compared to the simulated tear fluid. The phase change temperatures (gelling temperature) were monitored by gradual heating of the samples.

At instillation time, the formulations were solutions, and after increasing the temperature to 37°C, corresponding to the eye surface, clear gels were obtained. Preliminary studies have established the optimal chitosan/poloxamer ratio in order to obtain a prolonged release of the local anesthetic at the eye level. The phase change temperature did not modify upon dillution and neutralization. The gelling histograms were performed. It was developed a superficial properties profile adequated to physiologically conditions.

This type of formulations have advantages such as increased eye contact time, accurate dosage and ease of administration.

(ID 40) Synthesis and phytobiological study of new diphenylsulphonamides compounds

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Objective: The purpose of the study is to establish a new synthesis method for ureido/carbamate substitued diphenylsulphonamides compounds, followed by a phytobiological assessment.

Materials and methods: We synthesized ten new compounds using as a starting point the 4-(benzensulfonamido)benzoyl azide. We treated the azide with substituted aromatic amines in anhydrous dioxane to obtain the ureido compounds and with different alcohols for the carbamates. The toxicity was evaluated using the Triticum aestivum bioassay.

Results: Using a new, general method of syntesis we obtained seven derivatives of N-[4-[(phenylcarbamoyl)amino]phenyl]-benzenesulfonamide and three N-[4-[(oxicarbamoyl)amino]phenyl]-benzenesulfonamide. The structures were confirmed by elemental analysis, IR and NMR spectra.

We observed that the influence of the tested compounds on wheat embryonic root elongation was slightly different for the two classes of compounds. The ureido compounds have a small statistically significant stimulating effect and the carbamate substituted compounds presented a limited mitoinhibitory activity.

Conclusion: Ten new derivatives were obtained, seven with urea moiety and three with carbamate moiety, using a new method of synthesis. The general scheme used the 4-(benzensulfonamido)benzoyl azide as a starting point. The toxicity tests revealed that they can be forward tested on animals, because they presented none or low toxicity on vegetable cells.

PRECLINICAL SPECIALITIES

(ID 5) *In vivo* toxicity assessment of silicon quantum dots

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Introduction: Quantum dots (QDs) interaction with living organisms is of central interest due to their various biological and medical applications. One of the most important mechanisms proposed for various silicon nanoparticle-mediated toxicity is oxidative stress. QDs are nanocrystalline semiconductor materials that have been recently tested for biological applications such as cancer therapy, cellular imaging and drug delivery. The purpose of this study was to evaluate in vivo the degree of oxidative stress generated at the liver level following administration of Si / SiO2 QDs.

Materials and methods: Silicon QDs toxicity was investigated by injection into the codified vein of these Si/SiO2 QDs in Swiss mice, being tested in 3 different concentrations (1, 10 and 100 mg QDs/kg body weight). After 24 hours of nanoparticle administration, the mice were sacrificed and liver tissue was sampling. From the total protein extracts, were measured the specific activities of the antioxidant enzymes (superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GPX), glutathione reductase (Gred), glutathione S-transferase (GST), glucose 6-phosphate dehydrogenase (G6PDH), as well as reduced glutathione (GSH) and malonaldehyde (MDA) concentration. The results have been reported to those obtained in control mice, injected with physiological serum.

Results: The analyzes showed that the highest dose (100 mg QDs / kg body weight), decrease by 30% CAT activity, by 22% G6PDH activity, by 15% GST activity, and by 20% GPX and GSH concentration, respectively. The performed determinations demonstrate the lack of toxicity of Si / SiO2 QDs to concentrations of 10 mg/kg body, not affecting the redox balance at the liver.

Conclusions: The results suggest that oxidative stress induced by silicon-based quantum dots was not strong enough to cause permanent damage in the liver of Swiss mice.

(ID 161) Probing awareness using default EEG reactivity to subjects own name

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Quantification of background EEG reactivity to standardized stimulation paradigms is increasingly used to assess the brain function although the distinction between arousal and awareness remains challenging. The aim of this study was to distinguish awareness (content of consciousness) using EEG reactivity to subjects own name (SON). A group of 15 medical student controls and 8 comatose patients (mean Glasgow Coma Scale 8.5) were subjected to 6 EEG recording trials lasting 3 minute each. Each trial comprised of a 1-minute auditory stimulation (STIM) epoch preceded by a 1-minute baseline (PRE). The STIM epoch consisted of repeated SONs generated by a native language voice synthesizer. The SON trials were alternated with trials where the SON was played in reverse (rSON). For each trial we calculated the default EEG reactivity index (DERI, patent pending) to auditory stimulation. Briefly, we segmented the multi-channel EEG into consecutive classes with similar topographic frequency distribution and then identified the default class as the class with the largest decrease in occurrence probability from PRE to STIM. DERI was then quantified as the relative change in default class probability (PRE-STIM)/PRE. For each subject we calculated an awareness index (AI) as mean DERI(SON) - mean DERI(rSON). The AI was 24.1% in controls and only -0.3% in unconscious patients. Furthermore, anodal tDCS of the left dorsolateral prefrontal cortex (F3-Fp2, 1.5 mA for 20 minutes) increased AI to 37.2% in controls. Taken together, these data suggest that AI could be a useful neurophysiological tool for probing awareness.

(ID 162) Perspectives in the treatment of persistent infections: autologous bacterial vaccine

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Objectives: Worldwide, antimicrobial resistance represents an increasing problem producing infections difficult to treat. Alternatives must be found, one could be the use of autologous vaccines.

Methods: We retrospectively studied the available data from autologous bacterial vaccine department. We evaluated the characteristics of the persistent infections for which the 959 antigens were prepared between January 2017 and January 2018.

Results: The median age of the people who requested the autologous bacterial vaccines was 38 years. The majority (74.04%) had an injectable route of administration. In 16.48% cases a booster doses was offered. Regarding the composition of vaccines, 8.86% contained more than one strain, when multiple bacteria were isolated as the cause of the infection.

The bacteria used in the production of the autologous vaccines were isolated most frequently in pathologies represented by urinary tract infection (27.53%), acne (11.78%), purulent secretion (9.28%), furunculosis (5.94%), pustules (4.17%); and less from hidradenitis suppurativa, osteomyelitis, folliculitis, chronic wounds, or specimens like sputum, othic or prostatic secretion.

The strains most often involved in the persistent infections were: *Staphylococcus aureus* (16.82%), *Staphylococcus epidermidis* (14.27%), other coagulase-negative staphylococci (22.3%), *Escherichia coli* (24.48%), *Klebsiella pneumoniae* (8.6%), *Pseudomonas aeruginosa* (5%), *Enterococcus faecalis* (2.36%), *Proteus mirabilis* (2.17%). Other etiologies included *Enterobacter aerogenes, Enterobacter cloacae, Providencia stuartii, Morganella morganii, Stenotrophomonas maltophilia*. The conditions were unresponsive to antimicrobial treatment.

Conclusions: The majority of the persons receiving autovaccines were young adults, and the most frequently pathologies were urinary tract infection, acne, and furunculosis. The most often involved bacteria belong to the genus Staphylococcus, followed by *Escherichia coli, Klebsiella pneumoniae*. Further studies are needed to elucidate if these infections escape standard antibiotic therapy, by the expression of virulence factors, antibiotic resistance or host factors. The autologous bacterial vaccine could represent an alternative in the treatment of bacterial infections resistant to antibiotics.

(ID 190) Month-long analysis of resistance profiles and carbapenemase production among isolates from urinary tract infections

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Objectives: The analysis aims to identify the resistance profile and elucidate the mechanisms underlying resistance in Gram negative bacilli causing urinary tract infections.

Methods: During the month of March, an active surveillance of the antibiotic resistance profile of the Gram negative bacilli involved in Urinary Tract Infections (UTIs) from a Urology Clinic in Bucharest. The antibiograms were screened and replated on Cysteine Lactose Electrolite Deficiency (CLED) agar and Columbia Blood (7%) agar to check for purity. All microorganisms were identified through Matrix Assisted Laser Desorption/Ionisation Time-of-Flight Mass Spectrometry (MALDI-ToF-MS). Extended antibiograms were The Rapid Carbapenem Inactivation Method (rCIM) was performed on all Gram negative bacilli. Briefly, this is a phenotypic method used to identify carbapenemase activity, through the inactivation of carbapenem (meropenem/imipenem) discs upon incubation with a potential carbapenemase producer. A well characterised isolate of *Escherichia coli* (ATCC 25922) is used as a growth indicator and results are obtained within 3 hours, with the use of a nephelometer.

Results and conclusions: Based upon preliminary results, we identified that around 25% of the antibiograms had a contamination (with 2 to 4 microorganisms recovered from the antibiogram plate). The MALDI-ToF-MS analysis permitted the identification of microorganisms that remained unidentified through usual standard laboratory procedures and some rare microbial entities, among which Myroides spp, which is rarely cited as a pathogenic microorganism in Romanian literature. The rCIM was positive in 22.5% of isolates, while in 5% of isolates no pellet could be obtained. The resistance profile of the microorganisms evaluated is presented herein.

This study highlights a high incidence of carbapenemase activity in inpatients. Further studies are needed to evaluate the epidemiology of antibiotic resistance and carbapenemase production in order to make an informed decision upon antibiotic therapy.

(ID 61) The resting membrane potential evaluation of platelets from chronic myeloproliferative neoplasms patients

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Objectives: Chronic Myeloproliferative Neoplasms (MPNs) are diseases in which the bone marrow makes too many erythrocytes, white blood cells, or platelets. Patients with MPNs are frequently found with thrombotic and hemorrhagic complications. The complications were correlated not only with the number of circulating platelets but also with their qualitative characteristics (expression of membrane receptors, secretion granules etc). The resting membrane potential (RMP) is proper parameter to measure the quality features of platelets since it reflects its energy content and the activity of membrane specific ionic pumps and channels. The aim of our study was to evaluate the RMP value of platelets from patients with different MPNs.

Materials and methods: This study included 244 patients with MPNs as well as 20 controls. The MPNs patients presented essential thrombocythemia, polycythemia vera, myeloid metaplasia, chronic granulocyte leukemia/chronic myelogenous leukemia, chronic eosinophilic leukemia/hypereosinophilic syndrome and unspecified myeloproliferation. Platelet rich plasma (PRP) was obtained by gentle blood centrifugation at 130×g for 10 min. Platelets were separated by gel-filtration chromatography on a Sepharose CL-2B column in Tyrode buffer.

Platelet RMP was quantified by fluorescence measurements using as 3,3'-Dipropylthiadicarbocyanine Iodide (DiSC3(5)). Valinomycin (specific K^+ ionophore) and controlled concentrations of KCl were used to calibrate the fluorescence signal into milivolts using the Nernst equation for K^+-clamped membrane potential. The ATP content of platelets was measured by chemiluminescence using a Cell Titer Glo Luminescence Cell Viability Assay (Promega).

Results and conclusions: The RMP of the control platelets was -63.6±13.7 mV, while the RMP for patients ranged between -59.0 mV and -77.6 mV. The statistical analysis using ANOVA one way non-parametric test showed no significant difference between the controls and patients. No statistical significance was shown between different categories of MPNs either. There was no correlation between the RMP values and platelets' ATP content, but the study needs to be extended to a larger control group. Comparison between different chemotherapy drugs (hydroxyurea, dasatinib, ruxolitinib, etc.) effects on RMP/ATP parameters is ongoing for MPNs patients.

More parameters like membrane fluidity, reactive species production and aggregation activity, are envisaged to be measured on MPNs patients in order to get an extended view on platelets functions.

(ID 70) Involvement or withdrawing – an assessment among undergraduate medical students

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Objectives: The aim of this study is to assess the academic disengagement of medical students from an academic Romanian medical institution and the students' perception regarding the most stressful situation during their studies.

Methodology: The cross-sectional study included students enrolled in all six years of undergraduate medical training. Data were collected electronically among the students, using a self-administred online questionnaire. The questionnaire consists of 8 items` scale coming from a student version (OLBI-S) of the Oldenburg Burnout Inventory (OLBI), plus socio-demographic characteristics. Each item of the scale had four variants of responses on a Likert scale – ranked from 1 (strongly agree) to 4 (strongly disagree). A disengagement dimension score was used with a cut-off value of 2.1.

Results: The disengagement dimension (attitude of withdrawal and detachment from studies) showed an average score of 2.36 (±0.56 sd). The prevalence of disengagement attitude among students exceeded 63% for female students and 67% for male students. The prevalence of disengagement was lower among enrolled students who do not pay tuition fees (61%) compared with those that pay tuition fees (70%) (p=0,012 chi square test=6.308). Regarding the perception of the stressful situations during their medical academic studies, 88,7% of students point out to exams, and 81.6% to the large amount of information they must learn. Moreover, 74.5% of students believe that the responsibility required in their future professional activity is a stressful factor.

Conclusions: Majority of medical students show, on a self-reported scale, a disengagement attitude from their studies. It was estimated that academic examinations and the vast amount of information to be acquired during studies are perceived as stressful factors by medical students. This study is the first to measure the prevalence of academic disengagement among Romanian medical students. Factors perceived as stress triggers, as measured with this scale, can provide a baseline for future interventions. Interventions should aim to prevent or reduce the disengagement among medical students across all years of medical studies.

(ID 9) Prevalence and clinical heterogeneity of tooth agenesis in Down syndrome population

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Background: Down syndrome (DS), a well-known chromosome disorder, affects millions of people worldwide. Previous reports show that dental phenotypes vary considerably from one individual with DS to another. Dental findings do not increase the risk of death among people with DS, but the quality of life becomes worse.

Objectives: This report aims to estimate the prevalence of tooth agenesis in DS population and to compare the patterns of tooth agenesis with Romanian non-syndromic orthodontic population.

Patients and Methods: Patients with DS from few orthodontic clinics in Bucharest were enrolled in the study. A total of 51 people with syndromic tooth agenesis were examined. To overcome our aims, clinical examinations, panoramic radiographs, and cytogenetic analysis were performed. The subjects were differentiated into three groups: oligodontia group (6 or more teeth missing), hypodontia group (5 or fewer teeth missing), and usual number of teeth group.

Results: All DS persons presented at least one type of dental anomaly. Reporting the dental anomalies separately, hypodontia was the most common dental finding, excluding third molar (27/51 or 52.94%, much higher than 4.3% prevalence in orthodontic population). Of the total, 14 presented no dental agenesis.The number of congenitally missing teeth varied between 1 and 7. The most commonly affected missing tooth (excluding the third molar) was the upper lateral incisor followed by the lower central incisor and the lower second premolar. Symmetrical agenesis of teeth was common, particularly in permanent dentition. Patients with DS presented in various combinations of missing teeth resulting individual patterns of tooth agenesis.

Conclusions: A high prevalence of congenitally missing teeth was observed in individuals with DS. The results of the present study highlight the importance of thorough oral evaluation and approriate dental care for people with DS. Various patterns of missing teeth require evaluation of larger population with DS. Patients with missing teeth should be referred to an orthodontist familiar with treating these issues in patients with DS.

(ID 10) Advantages of excision of gingival hyperplasia to edentulous patient by laser

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Statement of Problem: Removal of gingival hyperplasia in pre-prosthetic treatment of edentuluos patient raises problems due to advanced age-related conditions, especially in diabetic patients and those with anticoagulant medication, with a high risk of bleeding.

Aim: The use of laser in the excision of gingival hyperplasia leads to a reduced bleeding, without the need for an excision post suture and a faster healing without a painful symptom after surgery.

Material and methods: In the case presented, a combination of two laser devices, ErCr: YSGG - Waterlase MD and Epic diode, from Biolase, was used for excision, the healing being followed for a period of two weeks.

Results: The intervention was performed under cabinet conditions, under local anesthesia, during two sessions, without suture, with minimal bleeding, complete healing being achieved in two weeks without postoperative pain. Only an ointment with vitamin A and E was used as an adjuvant

Conclusions: The use of laser in hyperplasia excision at the edentulous patient has benefits in terms of reducing the risk of complications and stimulating healing, with a more generous prosthetic field.

(ID 22) A multidisciplinary approach to the treatment of severe chronic periodontitis: a case report

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Objectives: The purpose of this study was to analyze treatment evolution of a 42-year old patient diagnosed with severe chronic periodontitis and systemic complications, using a multidisciplinary approach.

Methods: A non-smoker patient with severe chronic periodontitis, nephrectomy, type II diabetes mellitus, and class III obesity (BMI = 47.34 kg/m^2) attended a dental practice for oral problems. Periodontal examination (CAL, PPD, BOP), microbiological examination, and measurement of the salivary cortisol were performed before and after 1 month from the open flap surgery. Antibiotic (amoxicillin + clavulanic acid 825/125 mg, twice a day for 10 days) and anti-inflammatory (prednisone 5mg once a day) medication was recommended after surgery.

Results: Reevaluation at 1 month revealed good control of the gingival inflammation and stable periodontal status, pathogenic flora and salivary cortisol level changes. Clinical and radiographic findings reported at 6 months after initial therapy, indicated good efficacy of the therapeutic strategy and stability of the treatment outcome.

Conclusions: Periodontal surgery outcome can be improved in patients with systemic diseases if multidisciplinary approach is taken into consideration.

(ID 43) The antioxidant effect of lutein polylactic-co-glycolic acid nanoparticles on an animal model

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Background: Polylactic-co-glycolic acid (PLGA) is a biodegradable polymer that has been the focus of intense research based on the PLGA capability of targeting various cells and delivering active compounds. Lutein is a carotenoid produced only by plants and accumulates in the animal system only by diet acting as an antioxidant (AO) decreasing lipid peroxidation.

Objective: to measure and evaluate correlations between oxidative stress parameters such as glutathione (GSH) and malondialdehyde (MDA) in spleen and liver following administration of nanoparticles encapsulated with lutein in an animal model.

Materials and methods: The animal model consisted of 3 groups of 5 rats fed with a hypercaloric diet (21 days). The control group (O) received only a hypercaloric diet, group (N) received only PLGA associated to the diet. Group (L) received PLGA loaded with lutein associated to the diet. GSH and MDA levels were analyzed using colorimetric methods. Statistical significance was set at a p-value of <0.05.

Results: High levels of GSH were found both in the liver and spleen in all 3 groups, with highest values for the L group (0.79 ± 0.01 μmol for the O group; 0.8 ± 0.01 μmol for N group; 1 ± 0.01 μmol for L group for spleen and 0.49 ± 0.07 μmol for O group; 0.54 ± 0.07 μmol for N group and 0.63 ± 0.07 μmol for L group for liver). MDA levels in liver and spleen were decreased for the L group versus O group, (0.018 ± 0.005 nmol for O group; 0.016 ± 0.005 nmol for N group; 0.01 ± 0.005 nmol for L group for spleen and 0.031 ± 0.004 nmol for O group; 0.02 ± 0.004 nmol for N group; 0.017 ± 0.004 nmol for L group for liver).

Conclusions: NP encapsulated with lutein activates GSH antioxidant defense system in spleen and liver.

Administration of PLGA NP's provided protection against oxidative stress damage and usage of lutein can act as an antioxidant for spleen and liver in an animal model. More research on oral delivery of PLGA NPs using chronic doses is needed in order to fully understand particle behavior *in vivo*.

(ID 117) Postextractional osseous defects treated with beta-tricalcium phosphate (β-TCP) and platelet-rich fibrin (PRF): a histomorphometric analysis

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Objective: Because the application of β-TCP and PRF was not investigated in postextractional intraosseous defects of the rabbit maxilla, the objectives of this study was to analyze through means of histology and histomorphometry the healing of the bone tissue inside the alveolus, with respect to newly-formed bone tissue, residual granules of the biomaterial, blood vessels and connective tissue; also, the eligibility of this experimental model in relation with this type of intervention was evaluated.

Materials and methods: Eight New-Zealand rabbits were used in this study. The osseous defects were created by extracting the first premolar. Each defect was filled with either β-TCP alone (control) or β-TCP + PRF (test). All animals were sacrificed on the 4th (group 1; n=4) and 8th (group 2; n=4) postoperative week; the maxillas were removed and the specimens underwent decalcification and were stained with hematoxylin and eosin for histologic analysis; the histomorphometric evaluation was done using ImageJ software.

Results: All specimens completed the study without complications and with a 100% survival rate. No foreign body reaction or necrosis was noted. Bone regeneration and remodelling appears in the periphery and in the apical part of the defect and does not occur through fibrous tissue encapsulation. There were no statistically significant differences among the studied parameters. Both control and test materials showed an average newly-formed bone tissue increasing over time (4-8 weeks) from 39.52% (control) and 29.42% (test) to 36.70% and 53.88%, respectively. β-TCP granules alone, or in combination with PRF were continuously resorbed by osteoclasts in the 4-8 weeks period, ranging from 23.84% (control) and 42.70% (test) to 21.91% and 19.32%, respectively. Vascular remodelling occured through the 8th postoperative week, ranging from 7.42% (control) and 18.28% (test) to 27.36% and 11.07%, respectively. Connective tissue support at 4 weeks was 29.99% (control) and 14.51% (test), while at 8 weeks interval it ranged from 16.66% and 17.92% respectively.

Conclusions: Although no statistically significant differences were found between control and test materials, both newly-formed bone and residual granules tended to favor β-TCP + PRF. The rabbit represents a viable experimental model for this type of research.

(ID 196) Digital smile design in the CAD – CAM functional complete dentures workflow

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Statement of the problem: Esthetic rehabilitation of elderly patients is an important issue in the context of the absence of teeth and modified soft and hard tissues landmarks.

Objective: The present pilot study aims to integrate the digital smile design (DSD) analysis in the computer-aided design and manufacturing (CAD-CAM) workflow.

Materials and methods: Three elderly patients, enrolled in the cohort study registered with ClinicalTrials.gov Identifier: NCT02911038 and approved by the Romanian Research Bioethical Committee (# 98/2016) were selected for this pilot study. Informed consent was obtained from all participants. The protocol involved a two-step appointment process: First appointment - impressions, jaw relation records, occlusal plane orientation, tooth mold, shade selection and maxillary anterior teeth positioning. Extra and intra-oral standardized set of photographs were performed and esthetic digital smile design was obtained in Planmeca Romexis design Software (Planmeca, Finland) according specific face, hard and soft tissues landmarks. All data were digitalized and the proposed designed was validated by each patient. Scanned articulated mounted models and DSD simulation were imported in the EXOCAD software (DentalCAD, Germany) and the dentures were virtually designed, choosing the proper teeth dimensions and form from the specific library. The approved design was than manufactured using a stereolithographic technique (3D printing) from a PMMA-TiO2 modified nano-composite. The second appointment was for denture insertion and occlusal adjustments.

Results: The final restauration reproduced the results of the DSD analysis and the digital workflow was more predictable and time efficient.

Conclusions: The bi-dimensional planning through digital smile design technique is a useful instrument for aesthetic diagnosis and virtual treatment planning of full dentures, while increasing elderly patients' perception and acceptance of the treatment plan and results.

Acknowledgement: This work was supported by a grant of the Romanian National Authority for Scientific Research and Innovation, CCDI-UEFISCDI, project number 30/2016, within PNCDI III.

(ID 224) Pigmented species of anaerobic Gram-negative bacilli isolated from the oropharynx of healthy young adults

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Objectives: The pigmented Prevotella - Porphyromonas group belongs to the normal flora of the oropharynx, intestinal and genitourinary tract. However, these bacteria may be involved in different infections and may be beta-lactamase producers too. The aim of the present study was to investigate which species of this anaerobic group are colonizing most frequently the oropharynx of healthy young adults.

Method: A number of 14 healthy dentists (4 males and 10 females, aged 25-32 years), who have not taken antibiotics during the last three months, were investigated for these bacteria at the Microbiology Discipline, the Faculty of Dental Medicine (F.D.M.), University of Medicine and Pharmacy "Carol Davila" (U.M.F.C.D.) – Bucharest, during March 2018. Fourteen oropharyngeal swabs were collected and cultures were performed on Columbia blood agar (BioMérieux, France) incubated in jar, in anaerobic atmosphere for 2-10 days. The identification to the species level of the pigmented anaerobic Gram-negative bacilli strains was done by the Rapid ID 32 A system (BioMérieux, France). In addition, the Cefinase test (BioMérieux, France) was used for beta-lactamase detection.

Results: Twelve strains of pigmented anaerobic Gram-negative rods were isolated, of which 3 strains were Prevotella melaninogenica and the rest were Prevotella denticola. All these isolates were beta-lactamase producers.

Conclusions: Only 2 species of Prevotella were identified and P. denticola predominated. The high frequency of beta-lactamase producers in the oral cavity has to be taken into consideration when antibiotics are required for oral infections treatment. Acknowledgement: This pilot study is part of the internal research plan for 2017-2018 of the Microbiology Discipline - F.D.M., in collaboration with one of the members of the Epidemiology Discipline - U.M.F.C.D., Bucharest.

(ID 25) Boletus scaber Bull – a source of natural compounds with antioxidant activity

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Objective: The aim of our study was the evaluation of chemical composition and antioxidant activity of birch bolete mushroom (Boletus scaber Bull).

Material and methods: Birch bolete mushrooms were collected in the fall of 2016 from Moraresti village, Arges county, Romania and freeze-dried. Chemical composition and antioxidant capacity evaluation were performed using different extraction solvents (70% methanol – solution BSM and water – solution BSA). Chemical composition was determined by means of qualitative (specific chemical reactions and thin layer chromatography) and quantitative (spectrophotometric methods for total phenolic content – expressed as tannic acid equivalents and sterols – expressed as ergosterol equivalents; inductively coupled plasma atomic emission spectroscopy ICP-AES – for evaluation of mineral content) assays. The antioxidant activity was assessed by means of well-known methods – reducing power assay and scavenger activity towards 2,2-diphenyl-1-picrylhydrazyl (DPPH) free radical. The antioxidant activity was expressed as EC50 (mg/mL).

Results: Both methanolic and aqueous dry extracts are a source of phenolic compounds. BSA contains polysaccharides, whilst BSM is a source of free sterols. By means of thin layer chromatography we have identified the presence of ergosterol in both free and hydrolyzed methanolic solutions. Our ICP-AES results showed that birch bolete mushroom is a source of manganese, magnesium and zinc. According to our spectrophotometric results BSM has a higher content of polyphenols (0.7838 g%) and sterols (0.7850 g%) compared to BSA. The reducing power and DPPH assays revealed that BSM has a stronger antioxidant activity compared to BSA, which is in agreement with our spectrophotometric results.

Conclusions: The solvent is a key factor that influences both chemical composition and antioxidant activity. According to our results birch bolete mushrooms are a source of natural compounds and might be used in therapeutics for their antioxidant potential.

(ID 28) New research directions for obtaining biologically active adamantane derivatives

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Objective: The objective of this study was to establish the synthesis method of N-substituted (adamantan-2-yl)-N-(dialkylamino)alkylamides and to design a new molecule from this class, having therapeutic valences. This molecular pattern is promising because it brings together a remnant of adamantane found in several drugs, as well as the amide structure noted in the antiseptic and disinfectant class, our goal being to design a new therapeutic agent with antimicrobial valences.

Method: In order to determine the optimal method of synthesis of the compounds having the proposed chemical structure we used several synthesis methods with the purpose of obtaining N- (adamantan-2-yl)-N-(1-methyl-2-dimethylamino)ethyl-acetamide (hydrochloride) The compound is obtained by alkylation of 2-adamantamine (hydrochloride) with (2-chloropropyl) dimethylamine hydrochloride, the obtained intermediate reacting subsequently with acetyl chloride. The hydrochloride is obtained by reacting the amide in its basic form with an ethereal solution saturated in hydrochloric acid. Testing for antimicrobial activity aimed the determination of the minimum inhibitory concentration for quantification the bactericidal activity and to determine the dose that can be used in the treatment of microbial infections. The method applied was the dilution method, the used microbial strains being reference strains.

Results: The synthesis was difficult to achieve especially in the first stage, when the yields were rather low. Finally, we established an optimal method, giving N-(adamantan-2-yl)-N-(dimethyl)-1,2-propylenediamine in a 54% yield. The established reaction parameters were those of Method C in which we worked with potassium carbonate as the hydracid acceptor, the 70% ethanol reaction medium, the reaction time being rather low, 6 hours respectively. The synthesis was confirmed by proton and carbon nuclear magnetic resonance spectroscopy, infrared spectroscopy, and elemental analysis. The microbiological test showed that the substance has a broad spectrum of action on gram positive and negative species, noting the anti-Pseudomonas activity.

Conclusions: We have established a new synthesis method, optimized by synthesis of an original compound, N-(adamantan-2-yl)-N-(1-methyl-2-dimethylamino) ethyl-acetamide (hydrochloride). The compound has been characterized spectrally and in terms of

antimicrobial activity, highlighting its character as antimicrobial broad spectrum. The research will continue with a view to obtaining new compounds of similar molecular structure with improved pharmacotoxicological profile.

(ID 31) Pharmacognostical researches regarding indigenous *Russula aurata* and *Russula virescens* mushrooms

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Russula aurata (Gilded Brittlegill) and *R. virescens* (Greencracked Brittlegill) are edible mushrooms, spontaneous in Romania and verry appreciated for their gastronomic value. According to traditional Chinese medicine the Russula mushrooms have beneficial effects towards blood lipid regulation.

Objectives: determination of botanical characteristics and evaluation of chemical compositon of indigenous Russula aurata and R. virescens.

Material and methods: The material consists of basidiocarps of these mushrooms harvested in August 2017, from forests of Moraresti, Arges County (500 m altitude), Romania. For phytochemical screening the pharmacognostic analysis was applied. For quantitative analysis spectrophotometric and chromatographic methods have benn used used.

Results: The microscopic examination revealed the presence of hyphaes with specific nipple - shaped spores and hymenium with basidies in different stages of evolution. Triterpenes, sterols, monosaccharides, polysaccharides, nonalkaloid compounds were identified by specific chemical reactions in both species of Russula. By thin-layer chromatography one can note the presence of several spots corresponding to compounds with sterols/ triterpenes behavior. The HPLC analysis of the methanolic extract (analysed immediately after preparation) has shown the presence of 13 compounds in *R. virescens* and 10 compounds in *R. aurata*. These compounds are different from the reference substances (the retention time for oleanolic acid was 7.607 min., for ursolic acid 8.005 min. and for betulin 8.252 min.). The HPLC chromatograms of the same methanolic extracts after 48 hours showed only 10 peaks for *R. virescens* and 8 peaks for *R. aurata*. This analysis proved that some compounds are not stable in methanolic solutions. Our results pointed a a high content of polysaccharides (14.48 g% in *R. virescens* and 10.24 g% in *R. aurata*. (on a dry weight basis). From the infrared spectra analysis in the range of 4000–500 cm-1 the bands corresponding to the nitrites and nitrates were not present, so we assume that these mushrooms were collected from a non-polluted area.

Conclusion: The spontaneous mushrooms *R. aurata* and *R. virescens* harvested from Romania are a potential sources of biological active compounds.

(ID 32) Synthesis and acute oral toxicity evaluation of new sulfones

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Objectives: The aim of the present work was to synthesize and to evaluate the acute toxicity of new sulfone derivatives in order to estimate their safety dose level. In previous studies we reported the synthesis and antipathogenic activity of these sulfones against planktonic cells and bacterial cells grown in biofilms. The new compounds exhibited a broad spectrum of antimicrobial activity being effective against a wide range of infectious microorganisms, including Gram-negative and Gram positive bacteria and fungi.

Methods: The new sulfones were obtained through a multistage synthesis starting from dibenzo[b,e]thiepine-11-ones. These were converted to the corresponding 5,5-dioxides by oxidation with hydrogen peroxide and subsequently were transformed into corresponding oximes. The target compounds were obtained by acylation of these oximes with different carboxylic acid chlorides.

Acute toxicity was determined using "up-and-down" method, according to actual OECD guidelines. This method allows LD50 estimation by means of a safety margin and the results allow the classification and evaluation of a substance according to the Globally Harmonized System for the classification of acute oral toxicity. It was used the "limit test" because there was evidence that the compounds had a low toxicity. Eight new compounds were administered to five mice each at a dose of 2000 mg/kg body weight. Animals were followed for seven days. The following parameters were monitored: lethality, body weight (determined daily for 7 days), motor behavior, reactions to external stimuli, palpebral ptosis, the aspect of the fur and tail.

Results: We synthesized new sulfones and their structures were confirmed by spectral studies and elemental analysis. Acute toxicity studies showed no case of lethality for any of the substances. Weight changes were small, being statistically insignificant. Compound S8 produced psychomotor agitation, hyperreflexia to external stimulus and piloerection, installed in 5 minutes after p.o. administration. This may constitute a first indication of the pharmacokinetic profile of the substance, which probably has a good absorption from the digestive tract of the mouse and easily crosses the blood-brain barrier.

Conclusions: The new sulfones have a very low acute toxicity, the lethal per os doses being higher than 2000 mg/kg bw.

(ID 35) Molecular docking studies, synthesis and antimicrobial evaluation of a new thiourea derivative

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Objectives: Infectious diseases caused by bacteria and fungi remain a major world health problem because of the rapid development of resistance. The overuse and inadequate use of antimicrobial drugs have resulted in development of resistant genotypes.

In our present work, we described the docking study, the synthesis, and antimicrobial evaluation of 2-((4-chlorophenoxy)methyl)-N-(4-trifluoromethylphenylcarbamothioyl)benzamide.

Methods: In order to investigate the orientation of the compound in the active site pocket of target enzyme (S. aureus DNA GYRASE), docking study was performed using CLC Drug Discovery Workbench Software. The chemical structures of the new compound was characterized by IR and NMR (1H, 13C, 19F) spectroscopy. The antimicrobial assays were performed on reference microbial strains: Gram-positive (*Staphylococcus aureus ATCC 6538, Enterococcus feacalis ATCC29212, Bacillus subtilis ATCC 6633*) and Gram-negative (*Escherichia coli ATCC 8739, Pseudomonas aeruginosa ATCC 27853*) bacteria, as well as the fungal strain *Candida albicans ATCC 26790*. The qualitative evaluation of the antimicrobial activity was performed by the adapted disk diffusion method, using Mueller-Hinton Agar medium for bacteria and Yeast Peptone Glucose in case of fungi.

Results: The docking studies have been carried out to predict the binding modes, the binding affinities and the orientation of the docked compound at the active site of the protein. Molecular docking studies revealed that the thiourea derivative showed considerable interaction with amino acids of active site of DNA gyrase (PDB ID: 2XCS). The new compound, prepared from 2-(4-chlorophenoxymethyl) benzoyl isothiocyanate and the corresponding primary amine, showed inhibitory activity, influencing the growth of all tested strains.

Conclusions: After the docking study, the thiourea derivative was prepared and the structure was elucidated on the basis of their spectroscopic data. The compound was evaluated for its inhibitory activities on the growth of pathogenic bacteria and fungi, being active against the tested microbes. The developed model could provide some helpful clues in the future synthesis of highly potent antimicrobial molecules.

(ID 36) Synthesis, characterization and antimicrobial screening of some new thiourea derivatives from 2-thiophenecarboxylic acid

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Objectives: In the last years, a greater attention has been paid to antimicrobial activity screening and evaluating methods in order to combat microbial resistance. Also, there has been a growing interest in researching and developing new antimicrobial agents from various sources.

Because thiophene nucleus representing an important entity in the synthesis of new heterocyclic compounds with promising antimicrobial activities, we aimed to synthesize new thioureas derived from 2-thiophenecarboxylic acid.

Method: The compounds are resulting from a two steps synthesis, finally being prepared by the reaction of 2-thenoyl-isothiocyanate with various primary aromatic amines. The antimicrobial activity was evaluated by using both qualitative and quantitative assays methods, allowing to establish the Minimal Inhibitory Concentration (MIC) and also the Minimal Biofilm Eradication Concentration (MBEC) values.

Antimicrobial susceptibility was performed against some standard bacterial strains: *Staphylococcus aureus ATCC 25923, Staphylococcus aureus BA 1026, Enterococcus faecalis ATCC-29212, Bacillus cereus 53(100), Bacillus licheniformis 12195, Bacillus subtilis, Pseudomonas aeruginosa ATCC 27853, Escherichia coli ATCC 25922*) by two variants of the agar diffusion method (well and disc) and by microdilution assay.

Results: We synthesized and characterized seven new thioureas derived from 2-thiophenecarboxilic acid. The synthesis was confirmed by nuclear magnetic resonance and infrared spectroscopy and the compounds were characterized by their physical properties (melting point, solubility).

Our antimicrobial activity screening results showed that none of the seven compounds showed significant activity against the tested strains.

Conclusion: This study offers new information on thiourea derivatives, suggesting that the proposed molecular model should be developed and optimized. Further studies will be conducted to optimize structures and to determine antimicrobial activity on other bacterial strains.

(ID 45) Determination of the heavy metal content in different types of therapeutic products

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Medicinal plants are known since the earliest times because of the beneficial effects they have on the human body. They are found in medicinal tea compositions or can be a raw material in the pharmaceutical industry (obtaining dry extracts non/standardized in active principles) in the production of phyto-medicaments, supplements or dermatocosmetics.

Objective: Due to the excessive pollution of the environment (either directly or indirectly), a factor to consider for the quality control of the raw material is to determined the content of heavy metals. Starting from these premises, the aim of the study was to determinate the content of heavy metals from 4 herbal products with therapeutic action.

Material and methods: The raw material analysis was: lemon balm (*Melissae folium*), lavender (*Lavandulae angustifoliae flos*), cherry stalks (*Cerasorum stipites*), strawberry (*Fragariae fructus*). All raw materials were dried and ground before being analysed. In order to determinate the content of heavy metals, the samples have been mineralized with a solution of nitric acid suprapur 69%.

Results: It was determinated quantitative by atomic absorbtion spectrometry, using as techniques flame, the graphite furnace and the hydride generator the following metals: cadmium (Cd), copper (Cu), chromium (Cr), lead (Pb), nickel (Ni), mercury (Hg), zinc (Zn), arsenic (As). For each heavy metal determinated, it was drawn calibration curve in 3 point. Calibration coefficient was $R2>0.995$. After analysis, the heavy metal concentrations it was found in the range: Cd (0.034-0.200 mg/kg), Cu (5.37-12.87 mg/kg), Cr (0.85-3.12 mg/kg), Pb (1.49-3.59 mg/kg), Ni (1.16-15.94 mg/kg), Hg (0.176-0.247 mg/kg), Zn (23.63-45.21 mg/kg), As (0.006-0.219 mg/kg).

Conclusions: The presence of heavy metals in the analyzed raw materials indicates that there is a high risk of contamination with toxic effects on the human body.

Acknowledgement: The research is enroll in the program of doctoral study (27768/30.09.2016-UMF "Carol Davila", Bucharest).

(ID 48) Natural freshners with therapeutic effects

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Natural compounds used as freshners (essential oils and oleoresins) are widely distributed throughout plants kingdom, are found in different organs and are responsible for specific odour of plants. Based on these properties, they are widely used in parfume industry.

Objective: The aim of our paper was the evalution of these natural freshners therapeutic potential. Material and methods. We have performed a scientific literature screening using different date bases (pub med, sciencedirect etc) and books.

Results: Among herbal products that are used as natural freshners as well as therapeutic agents in phytotherapy one can note: European silver fir (*Abies alba Mill.*) – high content of essential oil, which is used for respiratory tract infections; lign-aloes tree (*Aquilaria agallocha Roxb.*) – aphrodisiac properties; clove pink (*Dianthus caryophyllus L.*) – which is used in aromatheraphy for its antibacterian and antifungic effects; crude cardamom (*Elletaria cardamomum (L.) Maton.*) – stomahic and carminative effects; wintergreen (*Gaulteria procumbens L.*) with anti-inflammatory and antiarrhythmic effects. Other important herbal products are star anise (*Illicium verum Hook.*) – source of trans – anethole; anise (*Pimpinella anisum L.*) – carminative properties; pimenta (*Pimenta dioica (L.) Merr.*) - a source of eugenol used an antiseptic, local anesthetic and carminative; scots pine (*Pinus sylvestris L.*) – a source of volatile oil used for respiratory and urinary infections; tailed pepper (*Piper cubeba L.*) – antiseptic effects; black pepper (*Piper nigrum L.*) – rubefiant activity; blackcurrant (*Ribes nigrum L.*) – antiallergic effects; Indian sandalwood (*Santalum album L.*) – used as antiseptic agent for urinary infections; wild thyme (*Thymus serpyllum L.*) – antiseptic, diuretic, choleretic-cholagogue, antispastic, antihelmintic effects and vetiver (*Vetiveria zizanoides (L.) Nash.* – carminative, diaphoretic, vermifuge properties.

Conclusion: Natural compounds (from herbal products) used as freshners, play a major role as therapeutic agents for a broad spectrum of diseases.

(ID 53) Liquid marbles as cosmeceuticals. A fractal interpretation

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Liquid marbles i.e. droplets covered in a hydrophobic powder, exhibit a double solid-fluid character. These structures convert a physico-chemical property (hydrophobicity) into a formulation design advantage for possible pharmaceutical use. Composition adaptation draws attention toward innovative applications in numerous fields (pharmacy, medicine, biotechnologies etc.), with expansion towards understanding innovative phenomena. Also known as "complete non-wetting objects", liquid marbles raise questions concerning formation and stability in time.

Objectives: This work includes a brief characterization from wettability point of view of model hydrophobic powders included in liquid marbles formulation. Whilst wettability is quantitatively represented by the contact angle, the fractal perspective concerns, in this case, the quality i.e. rugosity of the powder bed, which acts as a support and also as part of the formulation (external phase).

Method: The liquid droplets (water, glycerin) were rolled onto a hydrophobic powder bed. Salicylic acid, Lycopodium, Silica Fumed were used as model powders. Superficial characteristics (contact angle, surface tension) were investigated using a high speed camera from CAM 101 goniometer. Results were correlated with the shell's fractal geometrical structure.

Results and conclusions: Liquid marbles' surface characterization comes down to the interesting fact that Young's equation only applies to homogenous surfaces and describes the relationship between interfacial tensions and the measured contact angle. When referring to rough surfaces, the concept of an interfacial equilibrium becomes uncertain due to the roughness factor r, in fractal geometry approach. The well known Euclidian contact angle becomes a fractal contact angle, assuming a range of values. Experimental determinations followed the Analytical Quality by Design (Analitycal QbD) principles.

Hydrophobic powders as part of liquid marbles composition are met to be included in further cosmeceutical formulations.

(ID 58) Synthesis, characterization and antimicrobial evaluation of new compounds from oxazol-5(4H)-ones and oxazoles class

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Objectives: The compounds with 1,3-oxazol-5(4H)-one and 1,3-oxazole rings are important heterocycles both in synthetic chemistry and because of their biological activity. Various 1,3-oxazol-5(4H)-ones are known for antimicrobial, antiviral, antitumor activities. Also, 1,3-oxazole nucleus is an important pharmacophore in numerous antibacterial, antifungal (e.g. Sulfaguanole, Sulfamoxole), anti-inflammatory (e.g. Oxaprozin, Isamoxole, Romazarit), analgesic (e.g. Oxaprozin) drugs. In addition, the diphenyl sulfone derivatives (e.g. Dapsone, Amidapsone, Acedapsone, Promanide, Solasulphone, Sulfoxone, Diuciphone) have been found to possess antibacterial, antiviral, anti-tuberculosis and antioxidant activities. Therefore, our goal was to synthesize new compounds from 1,3-oxazol-5(4H)-ones and 1,3-oxazoles class, containing 4-(4-bromophenylsulfonyl)phenyl moiety in the two position, in order to obtain new compounds with potential biological activity. The new compounds have been screened for their in vitro antimicrobial activity.

Methods: The 3-phenyl-2-[4-(4-bromophenylsulfonyl) benzamido]propanoic acid was obtained by Steiger N-acylation of phenylalanine with 4-(4-bromophenylsulfonyl)benzoyl chloride. This compound underwent intramolecular cyclization, in the presence of N-methylmorpholine and ethyl chloroformate or of acetic anhydride with the obtaining of the corresponding saturated azlactone. Acylaminoacylation of dry aromatic hydrocarbons (toluene, m-xylene) with 4-benzyl-2-[4-(4-bromophenylsulfonyl)phenyl]oxazol-5(4H)-one or 3-phenyl-2-[4-(4-bromophenylsulfonyl) benzamido]propanoyl chloride, in the presence of anhydrous aluminum chloride, afforded the N-(1-aryl-1-oxo-3-phenylpropan-2-yl)-4-(4-bromophenylsulfonyl)benzamides. These intermediates were heterocyclized with phosphorus oxychloride or concentrated sulfuric acid, when the corresponding 5-aryl-4-benzyl-2-[4-(4-bromophenylsulfonyl)phenyl] oxazoles have been obtained. The structure of new compounds was confirmed by different spectral methods (FT-IR, UV-Vis, 1H- and 13C-NMR). For the determination of the purity of new compounds, the RP-HPLC method was used. Six new compounds were tested *in vitro* for their antimicrobial activity against several bacterial and fungal strains. The assessment was performed using the broth microdilution method, in order to determine the minimum inhibitory concentrations (MICs).

Results: Seven new compounds were synthesized and characterized, in order to evaluate the antimicrobial activity. The preliminary test results indicated that the following compounds have inhibitory effect: 3-phenyl-2-[4-(4-bromophenylsulfonyl)benzamido] propanoic acid against *S. epidermidis* (MIC = 56.2 μg/mL), 4-benzyl-2-[4-(4-bromophenylsulfonyl)phenyl] oxazol-5(4H)-one against E. coli ATCC and P. aeruginosa (MIC = 28.1 μg/mL) and 4-benzyl-2-[4-(4-bromophenylsulfonyl)phenyl]-5-m-xylyloxazole against *K. pneumonia* (MIC = 56.2 μg/mL).

Conclusions: We described synthesis, characterization and antimicrobial evaluation of seven new compounds from oxazol-5(4H)-ones and oxazoles class, possessing the 4-(4-bromophenylsulfonyl)phenyl moiety. Some of these compounds exhibit moderately biological activity.

(ID 62) Preliminary pharmacognostical research regarding Cantharellus cibarius

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Aim: The presence of compounds with known biological activity (immunomodulatory activity –polysaccharides; hypoglicemic and antimicrobial activity – ergosterol; neuroprotective, antimicrobial and anti-inflammatory activity - sinapic acid) in the chemical composition of *Cantharellus cibarius* (chantarelle), persuaded us to iniate this research in order to obtain pharmacologically active standardized dry extracts. Accordingly, first, we evaluate the quality of the raw material and, second, the antioxidant activity of 3 types of extracts from chantarelle along with evaluation of compounds that may influence this activity (total phenolic compounds and mucilages).

Material and methods: The basidiocarp of the mushroom was harvested from Morareşti, Argeş County in June, 2017. The quality of the raw material was evaluated using pharmacognostical analysis (macroscopic and microscopic exam, phytochemical screening, TLC-chromatography). The extracts were obtained by consecutive refluxation of the raw material with 3 solvents (hexan, methanol, water) in an drug-to-solvent ratio of 1:200 and 1:50. Quantitative determinations had targeted the content of total phenolic compounds (for methanolic and aqueous extracts) using a spectophotometric method (Folin-Ciocalteu protocol) and mucilages (for aqueous extracts) by a gravimetric method. The antiradical activity was evaluated using 3 methods: DPPH, ABTS and ferric reducing assay and expressed as IC50 factor (the extract concentration that decrease with 50% the radical absorbance). All the determinations were done in triplicats. The results were expressed as mean+/- standard deviation. Differences between the means were considered statistically significant at $P < 0.05$.

Results: The macroscopical and microscopical characteristics of the raw material comply with data found in scientific literature. The phytochemical exam indicate the presence of carotenoids, sterols, mucilages and tannins in the raw material. The highest content of total phenolic compounds was found for the methanolic extract (1.0538g total phenolic compounds expressed as tannic acid/100 g raw material). The mucilages content of aqueous extract was 1.0160 g/100 g of dry raw material. All methods indicate that the aqueous extract has the highest antioxidant activity. Statistical differences were found only for hexanic extract.

Conclusion: Our results indicate that *Cantharellus cibarius* represents a rich source of biological compounds with antioxidant activity that may be capitalized as pharmacologically active dry extracts. Pharmacological research must establish the therapeutic profile of chantarelle.

(ID 83) Validation of an UV-Vis spectrophotometric method used for determining the amount of furosemide from oral and injectable pharmaceutical formulations

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Objective: The aim of the present study was to validate a spectrophotometric method for the determination of small amounts of furosemide in bulk and different pharmaceutical formulations. The procedure proposed a reaction based on the formation of the Schiff's base between the primary amino group present in the structure of furosemide and the aldehyde group present in the 5-sulfo-salicylaldehyde reagent, which acts as a ligand for the formation of an intense coloured complex with Co(II) in the acidic medium, with a maximum absorption at 608 nm.

Method: A UV-VIS Jasco V530 B31096 spectrophotometer with quartz cells (l = 1 cm) was used for all absorbance measurements. All chemicals were of analytical reagent grade and were used without further purification. After the Schiff base was obtained, then the solutions were scanned, and the absorbance was measured at 360 nm, against methanol as blank, then 1.5 mL of Co(II) solution was added. The absorbance of the green colored complex was measured at 608 nm against a blank reagent. After 10 min, the amount of furosemide present in the sample was computed from the calibration curve.

Results and conclusions: A linear calibration curve for Furosemide (Fur) was obtained, which showed that Beer's law is obeyed over the concentration range of 5-100 ppm. The accuracy and precision of the proposed spectrophotometric method were determined at three concentration levels of Fur drug by analyzing five replicate samples of each concentration by the suggested method. Relative standard deviation (RSD%) as precision and relative error (E%) as accuracy of the suggested method were calculated. The results depict good accuracy and precision as illustrated by the low values of RSD% and low values of E%, proving the repeatability and reproducibility of the proposed method. All the results were calculated for five determinations. The detection limit (LOD) was 2.133 μg/mL and the limit of quantification (LOQ) was 1.105 μg/mL. These results encourage the application of the proposed method in the routine quality control analysis of Fur in different pharmaceutical formulations.

(ID 90) Demographic factors and Romanian hypertensive patients' adherence to medication

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Objectives: The aim of the study was to investigate the relations between the demographic factors and the adherence to prescribed medication in hypertensive patients addressing community pharmacies from Bucharest.

Method: 1208 patients were interviewed. Demographic data, clinical data and information about the drugs they took were gathered. By applying to the patients a questionnaire about their medication taking behavior, their adherence to medication was estimated. We statistically analyzed and interpreted the relationship between the demographic factors and the adherence to treatment.

Results: Mean adherence in the analyzed sample is 5.49 (adherence score ranges between 0 and 8, 8 being assigned to maximum adherence). Adherence decreases with age. Women are more adherent to medication than men (the average adherence score in women is 5.53 and in men 5.45). In the category of maximum adherence there are almost 55% more women than men (60.7% versus 39.3%). This gap becomes smaller as the adherence to medication decreases. The drug adherence score of the 386 respondents with academic education is statistically significantly higher than that of the 522 subjects with college studies ($p < 0.001$) and statistically significantly higher than that of the 278 respondents with gymnasium education ($p < 0.001$).

Conclusions: Present data show that a target population for interventions intended to increase adherence to medication should be older people, who currently are taking a lot of drugs as therapy for their chronic conditions. Also, the interventions should be designed differently for those with different levels of educations, taking into account that those benefiting more from such interventions could be those less educated, who need to be talked with at their level of understanding.

(ID 91) Clinical pharmacy study regarding pharmacotherapy of acute respiratory infections in infants and young children

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Objectives: We have been following the pharmacotherapy of acute respiratory infections in infants and young children, because they are of maximum importance due to the high incidence and contagiousness, etiological diversity and complications through superinfection. In the treatment of respiratory infections, there is often an unjustified antibiotic prescription in children and infants, taking into account the viral nature of infections. This may increase the resistance to antibiotics with complications arising from subsequent bacterial infections.

Methods: The data needed to analyze the link between disease-symptoms-treatment was obtained from a family doctor from a dispensary in Bucharest. These include: patient initials, gender, date of birth, disease code, treatment, posology, and the need of referral to specialist in case of complications.

We analyzed data from 304 patients born between 2015 and 2017, and the frequency of the family doctor visits due to respiratory infections.

Results: Following the quantification of the total number of patients born between 2015 and 2017, we noticed that the incidence of respiratory infections is higher in boys than girls in the same age group.

Additional investigations and referrals to the specialist are required in few cases (19 cases - 8%).

In most cases with multiple episodes of respiratory infection in the same year, a predisposition for the same disease was observed. This shows a child's sensitivity to a particular segment of the respiratory tract. The number of antibiotic prescriptions is much lower than those without antibiotics. This proves that respiratory infections are rarely treated with antibiotics because of their viral etiology. The most prescribed antibiotics were from the penicillin class, followed by macrolides and cephalosporins.

Conclusions: We have shown that the treatment focuses on the symptoms and less on the cause, knowing that respiratory infections are predominantly viral. Most prescriptions containing an antibiotic had the diagnosis of: bronchitis and acute bronchiolitis, bacterial pneumonia, upper respiratory tract infections and lower respiratory tract infections. It is a good example of a family medicine who makes a very clear distinction between viral and bacterial infections and prescribes antibiotics with great discernment.

(ID 94) Development and evaluation of experimental cosmetic products with ingredients produced by honeybees

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Objective: The aim of this study was the formulation and process development of a cosmetic product with propolis extract and royal jelly, both ingredients produced by honey bees. The formulations which were developed were similar to an existing, commercially available cosmetic product – Apidermin Lux® cream with shea butter. Two experimental formulations were prepared and their organoleptic and pH characteristics were assessed compared to the control product Apidermin Lux®. Also, the effect of all formulations on skin hydration and skin elasticity were evaluated.

Methods: Based on the qualitative composition of Apidermin Lux® stated on the label of the product, two experimental formulations were considered and prepared in the pharmacy laboratory, in GLP conditions. Both formulations included the same ingredients, the main difference between the two cosmetic products being the percentage of Royal Jelly included in the formulations – 4% and 8% respectively. The appearance and pH of the resulting experimental cosmetic products were evaluated. Also, the effects of application of all products for seven days on skin hydration and skin elasticity were assessed using a Multiprobe Adapter 5 (Courage+Khazaka GmbH, Germany) equipment.

Results: The resulting rexperimental products had a pleasant appearance and a pH value compatible with the skin. After applying the cosmetic creams for seven days on designated skin areas, an increase of the skin hydration and an improvement in the appearance of the skin was observed. Significant effects of increasing elasticity and maintaining it at a constant level were recorded for the experimental cream containing a higher percentage of Royal Jelly.

Conclusions: The results suggest skin moisturizing and rejuvenating effects of the experimental cosmetic products. In order to better emphasize and evaluate these effects, the developed cosmetic products should be administered for a longer period (2-3 weeks).

(ID 129) The study of the formulation, preparation and stability of a dermocosmetic preparation in the form of an emulsion with a photoprotective activity

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Objectives: The new trends in research and development of photoprotective products are pursuing the goal of decreasing, down to the elimination if it's possible, of the negative influences on the skin (high allergenic potential, risk of tissue accumulation, hyperpigmentation) throughout the accomplishment of complex formulations. The studies we have carried out in this paper consist in the following: selection of the excipients and active ingredients (organic and inorganic filter and/or screen substances, natural products, antioxidants) and the use of a proper technological process for obtaining a dermo-cosmetic product having a good physical and chemical stability, as well as suitable organoleptic and rheological properties in order to ensure the innocuity and pleasant administrating features.

Materials and methods: We have used the following ingredients: one new organic filtering photo protective substance, two inorganic screen photo protective substances: titanium dioxide coated with alumina and silicon (titanium dioxide M170) and zinc oxide who acts on the entire UVA and UVB spectrum; vegetal extracts: Sophore extract (flavonoids with antioxidant action and protective capillary), Meliloti extract (coumarins with screen effect), one protein substance: collagen used for the skin elasticity, skin hydration, firmness and revitalizing effect; natural antioxidants: vitamin A, E and C; natural products having a slight photoprotective, a hydrating and emollient actions like argan oil, jojoba oil, sesame oil, grape oil seed; cacao butter and olive oil, viscosity modifying agents; preservatives, natural perfumed composition.

The physical and chemical methods used to characterize the row materials and the final products are: the quantity of organic substance (with the UV filtering role) was determined by an UV-VIS spectrophotometric method; the photoprotective ability was tested by applying a standard amount of emulsion on a synthetic skin device; to test the microbial stability were applied the European Pharmacopoeia stipulations; the hydrating effect was evaluated through instrumental methods; to determine the consistency were performed viscosity and spreadability determinations.

Results: The emulsion have an attractive appearance, pH compatible with skin, an adequate rheological behavior, a good plasticity, consistency and stability.

Conclusions: The present work has created the premises of a more detailed study on the possibility of preparing a photoprotective emulsion.

(ID 194) The influence of the hydrodynamic parameters on the *in vitro* dissolution of drugs from immediate release oral solid dosage forms

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Aims: The objective of the study was to comparatively analyze the in vitro dissolution profiles of a highly soluble and highly permeable drug (BCS class 1) from immediate release solid oral dosage form, using three types of compendial apparatuses.

Materials: Three consecutive batches of the same solid oral formulation (conventional, uncoated tablets, manufactured using different sources of active pharmaceutical ingredient and same qualitative / quantitative composition) was subject to a series in vitro dissolution tests. The parameters represented adaptions of the compendial (USP) specific monograph. In a first approach, the standard basket method (900 mL, 100 rpm) was applied. The paddle apparatus was used at 50 rpm with a reduction of the volume of aqueous media to 500 mL. A more biorelevant methodology was developed based on the particularities of the reciprocating cylinder (USP apparatus 3), combined with 250 mL medium and 10 dpm. The tests were performed in six replicates at 37±0.5°C. The mean profiles for each batch were analyzed in terms of variability and kinetic particularities.

Results: The discrimination between the consecutive batches was reduced, due to the fact that the solid dosage form underwent rapid disintegration and consecutive release of the drug. For the basket method applied in the compendial setup, significant amounts of solid particles were expelled from the stirring units immediately after initiation of the rotation, with complete dissolution in less than 10 minutes (very rapidly dissolving characteristics). The variability at the first sampling point was low. The slower release concluded for the paddle method was probably generated by reduced hydrodynamic parameters. The reciprocating movements of apparatus 3 were more sensitive for the minor difference in disintegration pattern. The higher dispersion of the experimental data correlated with the known limitation of the apparatus, i.e. the positioning of undissolved particles in the peripheral regions of the flat bottom, static vessel.

Conclusions: The correlated use of the three compendial in vitro dissolution apparatuses is useful for the assessment of the consistency in the performance of the immediate release solid dosage forms. Each adapted methodological approach has specific hydrodynamic limitation which needs to be considered for adequate interpretation of the results.

(ID 199) The evaluation of isoconazole nitrate 1% creams using the *in vitro* release profiles for comparative microstructural assessment

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Aims: The aim of the study was to comparatively assess the microstructure of six topical semisolid dosage forms containing 1% isoconazole nitrate, using correlated rheological and diffusional approaches.

Materials: The creams were evaluated using an in vitro release protocol, including standard vertical diffusion cells, artificial inert membranes and an aqueous acidic media, able to provide sink conditions. Samples were collected manually for 6 hours and the diffusion profiles were analyzed by calculation of 90% confidence intervals, applied to the individual release rates (Higuchi model). The group of topical formulations were also assessed by analyzing the response of the semisolid matrix to controlled shear or stress (oscillatory and rotational tests performed at temperatures simulating storage or *in vivo* conditions, e.g. application onto the skin or vaginal mucosa). The following rheological parameters were calculated and compared within the group of multisource cream products: yield stress, linear viscoelastic regions, specific storage and loss modulus values, hysteresis areas, recovery pattern after application of controlled shear stress.

Results: The microstructural evaluations underlined the considerable differences in terms of qualitative and quantitative compositions, leading to distinct deformation and structural recoveries. The reference product design for vaginal application displayed a drop of spreadability as the temperature increased, with favorable adhesion and residence times. The occluded, pseudo-infinite dose conditions used for the in vitro release testing further confirmed the rheological differences and the discriminatory character of the methodological approaches. The rate limiting factors were not only related to the diffusional resistance, but also to the solubility of the drug within the semisolid matrix. The temperature proved to be a critical factor, significantly altering the yield stress values even for the same qualitative composition (Q1 similarity).

Conclusions: Correlated rheological and in vitro drug release testing are useful tools for screening the potential impact of composition and manufacturing process variables on the *in vivo* performance of topical semisolid dosage forms.

(ID 242) The quality control of some antibiotic drug products by TLC and UV-Spectrophotometric methods

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Antimicrobial resistance (AMR) is a public health issue at global level. Currently, 700,000 people die every year due to drug-resistant infections worldwide. AMR is driven, in part, by pathogens being exposed to sub-therapeutic doses of medicines, which may be caused by several factors, including: treatment errors by healthcare professionals, non-adherence by patients to appropriate prescriptions or treatment guidelines and poor-quality medicine. USP and many public health leaders from around the world recognize that quality-assured medicines play a critical role in helping to address AMR. One of the strategies is to develop and apply science-based, cost-effective, and customized solutions for testing and monitoring the quality of pharmaceutical and medical products currently in circulation. In line with this strategy, we focus on testing the quality of some antibiotics drug products using simple, cost-effective and reliable methods of analysis.

Objective: The aim of this study was the use of simple methods of analysis for the quality control of four drug product containing ciprofloxacin.

Material and methods: A TLC method, with acetonitrile: ammonia: methanol: chloroform 1:2:4:4 as mobile phase, was used for qualitative analysis. A UV-spectrophotometric method was used for qualitative and quantitative analysis. Two sterile pharmaceutical formulations: an injectable solution and an ophthalmic / auricular solution and two solid formulations: tablets and prolonged-release tablets, available on the Romanian pharmaceutical market, were analyzed.

Results: A positive identification of ciprofloxacin was obtained in the products studied by both methods of analysis used. For the assay of ciprofloxacin in drug products, external standard method (λ=276 nm) was used and all the four medicines were analyzed in triplicate. The content in ciprofloxacin was in the range of 95–105%, in line with the requirements of current European Pharmacopoeia for all the analyzed formulations.

Conclusions: Four pharmaceutical products containing ciprofloxacin were analyzed using simple, science-based and cost-effective methods. After the analysis, we find that European Pharmacopoeia quality standard regarding the ciprofloxacin content are fulfilled by all four drug products purchased from the Romanian pharmaceutical market.

(ID 246) Evaluation of dissolution profiles of newly developed immediate release formula containing alpha lipoic acid

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Alpha lipoic acid (ALA) has become a common ingredient in many pharmaceutical and food supplement products.

Objective: The main objective of this study was to develop and test a optimal biodisponibility pharmaceutical solid oral form of tioctic acid compared with the reference product. We performed series of in vitro biodisponibility studies to evaluate and compare the dissolution profiles of the samples of 300 and 600 mg ALA immediate release tablets.

Methods: Fixed volumes of the dissolution medium were withdrawn at 60 minutes. Dissolution tests were performed on the USP Apparatus 2 FR X (Dissolution tester HANSON SR 8+; rotating speed 75 rpm at 37±0.5oC, 900 mL, distilled water, dissolution time one hour). Q minim: 70%; individual Min. Q+5% (75%) HPLC was performed according to the „Alpha Lipoic Acid Tablets" current USP specification with a mobile phase composed of methanol, 0.05M phosphate buffer pH 3.0-3,1: acetonitrile=1:1 v/v, and peaks were detected at 215 nm. Degassed and diluted samples were analyzed on Kinetex XDB-C8 column (250×4.6mm, 5μm), at 25oC and 1.2 mLmin-1 flow rate. The relative STDEV of the reference solution should be less than 2%. The dissolved amounts of ALA in soft capsules and tablets at the end of testing were in the range of 76.87±0.86%- 66.02±4.41% for the reference product and for the tested formula respectively.

Results: The results of dissolution studies show the percentage of ALA dissolved differed with 10.45% in the tested formula compared with the reference. The results obtained in this study indicated problems in drug release from the investigated ALA developed tablets and needs adjusting of the formula in order to develop e bioequivalent formula. Conclusions: The obtained results suggested that the developed formula must be adjusted in order to obtain a bioequivalent product, dosing of the dissolved amount of ALA should be done in different moments of time to determine the percentage of ALA dissolved as a function of time.

(ID 8) MicroRNAs – new biomarkers in the management of urinary bladder cancer

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Introduction: Bladder cancer is a public health problem in our country and worldwide. Understanding its complex etiology, early diagnosis, progression and recurrence requires the identification and implementation of new biomarkers with increased sensitivity and specificity. Previous research studies have highlighted the involvement of micro-RNAs in gene regulation, in carcinogenesis, revealing their importance in these biological processes. The influence of micro-RNAs on cell cycle progression, increased survival, invasiveness and metastasis indicate that they can act as oncogenes or tumor suppressor genes. In patients with urinary bladder cancer, expression profiles of micro-RNAs are significantly altered in tumor cells, in blood and urine.

Aim: The objective of our research is to explore the functional role of selected micro-RNAs providing new insights related to detection, diagnosis and progression of bladder cancer, with important impact in the clinical management.

Material and methods: Tumor and normal tissue biopsies from 80 patients with urotelial carcinoma, obtained by cystectomy were studied. Total RNAs were isolated with miRVana miRNA Isolation kit (Invitrogen). Expression levels of selected miR124, miR126, miR139, miR145 and miR182 was performed by quantitative RT-PCR method (TaqMan Universal Master Mix II and specific primers from Applied Biosystem).

Results: Significant changes of the microRNAs expression profiles are associated with stage, tumor grade, metastasis and recurrence. Difference between micro-RNAs expression in tumor and normal tissues defines the prognostic biomarker potential of micro-ARNs in urinary bladder cancer.

Conclusions: MicroRNAs could be ideal biomarkers for early diagnostic and long term prognosis, but also potential therapeutic targets. In the future, we will investigate the involvement of microRNAs in cell function by identifying their expression and regulation in normal and cancer tissues.

(ID 11) Infection with *Treponema pallidum* in pregnant women from Ploiesti, Romania

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Objective: To evaluate the prevalence of syphilis infection in pregnant women and their newborns in Ploiesti. The last report from Institute of Public Health shows 118 cases of syphilis in pregnant women, 23 detected just before birth and 5 cases of congenital syphilis, no case originated from Ploiesti.

Method: For 3 months in 2017, all births from the Obsetrica and Gincology Hospital from Ploiesti were monitored for *Treponema pallidum* infection. Thus, 966 pregnant women and their newborn babies were evaluated.

Results: All pregnant women were tested for *Treponema pallidum* infection when they presented for giving birth. They were all tested for detection of antibodies against *Treponema pallidum* with Laboquick, LBSY01 test, a screening assay. 9 pregnant women were positive. After giving birth, both they and their newborns were taken over by the Services or Surveillance, Prevention and Control of Nosocomial Infections Department of the Obstetrics and Gynecology Hospital from Ploiesti to confirm the infection with *Treponema pallidum*. Blood samples were collected from mother and newborn and sent to Ploiesti Public Health Department. Three types of tests were performed in both newborns and mothers: Test TPHA (passive haemagglutination, TPHA siphylis Dialab reagents); RPR test (Non-treponemic flocculation test, REST test kit Kit Fortress DG) and VDRL test (Non-Tetonemic Flocculation Assay, Cardiolipin Antigens from Institute Cantacuzino). Following testing, 7 mothers and 7 newborns had positive results, so newborns entered treatment with penicillin 100.000 for 14 days. The median age of women diagnosed with syphilis was 29 years (range 17-41). All women gave birth at right time but one. Only one women was at her first birth, the rest gave birth of 2,3,4 and 9 babies. The median weight of newborns was 3400 g (range 2700 g-3900 g). Newborn babies were 2 female and 5 male, all with APGAR 9 at birth. A single baby girl showed clinical signs, skin lesions.

Conclusions: After the treatment with penicillin from hospital, both the mother and the newborn are directed to the dermatologist for re-evaluation and diagnosis. Often, due to the poor conditions of living of the patients, they are not presenting themselves to re-evaluation and are lost from the evidence.

(ID 39) Food supplements in sports: knowledge, dietary behaviors and practices

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Objectives: Non-communicable diseases (NCDs) are the leading cause of mortality throughout the world. Major risk factors for NCDs, such as insufficient physical activity and improper diet, are common but highly neglected. The aim of this study was to investigate the dietary habits in sportspeople, with particular regards to food supplements.

Methods: An observational descriptive research was conducted in a transversal approach using a questionnaire for collecting data among individuals with subscription to a gym (with at least one training per week). The questionnaire included 4 sections: socio-demographic data, physical activity level, nutrition facts and food supplements consumption.

Results: The research included 187 respondents (139 males and 48 females) aged from 17 to 46 years. The main motivation for training in a specialized gym was the physical aspect, followed closely by health concerns. Although subjects included in the study are active individuals, with increased energy needs, only 16% of men and 26% of women targeted the appropriate daily caloric intake. Less than half are satisfied with their macronutrients intake and approximately a third of them know how to divide the global energy intake into macronutrients. Only 33% of respondents could manage to reach their nutrient goals without using dietary supplements. Furthermore, half of the questioned subjects have tried at least once food supplements. A percentage of 22% ignore reading the label of the products and roughly a half follows the recommendation of regular dosage without consulting a specialist. Possible side effects occurring after food supplements consumption are researched by more than half of the respondents and 30% of them recall having minor events like palpitations, nausea, headaches. Only 19% would invest in a healthy diet alone, rather than on supplements.

Conclusions: The increasing awareness about health is creating a shift toward better lifestyles, but drawbacks can easily follow, especially in terms of nutrition and dietary habits. Food supplements represent a convenient alternative to regular diets, being a growing industry. Also, the lack of strict regulations combined with exhaustive research into potential adverse effects and the deficient knowledge among consumers might generate future public health issues.

(ID 46) Saliva as a diagnosis fluid in periodontal disease

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Objective: Saliva and gingival crevicular fluid (GCF) are valuable for the diagnostic of both oral and systemic diseases by being easily accessible, collected non-invasively and abundant in biomarkers. Meanwhile, oxidative stress (OS) is involved in the pathogenesis of numerous systemic and oral disorders, including periodontal disease, oral lichen planus and oral cancer. Furthermore, OS can be considered as a possible link between systemic and oral diseases. The aim of this study was to correlate biomarkers of the OS and collagen degradation from both saliva and GCF in patients with periodontal disease and to estimate the OS role in disease's pathogenesis.

Method: 30 patients were examined and diagnosed with chronic periodontal disease by determining the plaque, the bleeding indices and the presence and size of the periodontal pockets. 20 control subjects were included in the study. Salivary and GCF levels of 8-hydroxydesoxyguanosine (8-OHdG) and β-CTX were determined using the ELISA method.

Results: Our results showed increased levels of 8-OHdG and β-CTX both saliva and GCF for patients with periodontal disease versus control group ($p<0.05$).

Conclusions: These results reflected the possible role of reactive oxygen species in periodontal disease and distinguished 8-OHdG as an important marker for oxidative degradation. Also, through the increased levels of β-CTX the study reflects the existence of degradation in collagen and of bone resorption in periodontitis patients. Our results promote the use of GCF and saliva as reliable diagnostic fluids.

(ID 47) Label-free optical biomarkers for early metastatic potential detection of malignant cells

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Aim: The detection of the metastatic potential (MP) of primary malignant cells represents a characteristic of great importance of cancer cell, with impact on the therapeutic protocol and life quality of oncologic patients. Some optical parameters, such as refractive index and dry mass, were already validated as label-free biomarkers in various pathologies (hematology, infectious diseases, oncology), being related to the normal cell content distortions. In our work we exploited a non-invasive and fast recording method, the Digital Holographic Microscopy (DHM) in off-axis configuration, to correlate a combination of optical parameters (refractive index, dry mass density, and distribution of the phase shift in the reconstructed phase images) to the metastatic potential of cultured cells.

Method: Two sublines with different MP (F10 and F1) of the murine melanoma B16 cell line were cultured in standard conditions. Holograms were acquired and quantitative phase images (QPIs) were reconstructed for living cells. Refractive index of the cells was computed in specific zones of maximum phase shift using the decoupling procedure. Cells were characterised globally by the dry mass density parameter. The histograms of the optical phase distribution within the QPIs were analysed with Sarle's multimodality statistical coefficient. The MP of F1/F10 cells was quantified with two standard methods for malignancy detection: impedance-based cell proliferation assay and clonogenic tests.

Results and conclusions: We found that the B16F10 cells had higher values of refractive index and lower dry mass density than the F1 subline. Their histograms were unimodal, while the histograms of the optical phase distribution of F1 cells were bimodal. These results are in good correlation with the bio-electric assays (higher and faster cell index value and bigger colonies for B16F10 cells), confirming that the F10 subline has a higher MP than the F1 cells. We propose that the QPIs bimodality analysis combined to the refractive index and dry mass density parameters to be an optical signature of the metastatic profile of tumour cells. Further developments are ongoing to extent the method from single cells to tissues and to create an automatic image processing pipeline easy to apply in clinical conditions.

(ID 49) Assessment of unhealthy eating habits among medical students: a cross-sectional descriptive study

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Objectives: The purpose of this study was to investigate dietary habits of medical students in order to identify effective interventions and strategies for a healthy nutrition among young population.

Methods: Two hundred and eighty-seven undergraduate students attending University of Medicine and Pharmacy "Carol Davila" Bucharest, from all six years of study, completed a self-administered questionnaire on food frequency consumption and habits: sweets and sugary products, sugar-sweetened beverages, fast food and fruit consumption, the schedule of main meals and breakfast habits. Also, the student's perceptions about unhealthy food and ways to prevent unhealthy diet were investigated.

Results: Unhealthy dietary patterns of male (n=82) and female (n=205) medical students included consuming sweets daily (35%), consumption of sweetened carbonated beverages (11% daily; 13% 4-5 times per week; 16% 2-3 times per week) and fast food products (1% daily; 3% 4-5 times per week; 11% 2-3 times per week), skipping breakfast (40.5%) or irregular schedule of main meals (41.7%). Only 25% of students report daily fresh fruit consumption. It was observed that male students adopt more frequently unhealthy eating habits compared to female students. In general, students in the third year had healthier food choices, followed by those in the year 5 and 6. Most students consider the topic of nutrition to be important, 99% of them claiming that the population needs to be more informed about the effects of sugar-sweetened beverages and fast food consumption. Methods to combat unhealthy eating habits were designated in this order: information transmitted through the media, campaigns promoting healthy behaviors made by medical staff, warnings on the food labels and restrictions on advertising and marketing the unhealthy food products.

Conclusions: Medical students represent an important group in communication and dissemination of public health messages related to nutrition. Thus, more effective measures need to be taken to improve the nutritional behaviors of young practitioners. The appropriate nutrition education and the adoption of healthy eating habits among medical students make it possible to modify paradigms related to this topic among the general population.

(ID 52) Good bacterium and bad bacteria

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Introduction: In the last years the number of patients admitted for *Clostridium Difficile* first infection and relapse increased in the National Institute for Infectious Diseases Prof. Dr. Matei Bals, Bucharest. Hence, new treatment methods are currently studied and applied (e.g. Fecal microbiotal transplantation, etc).

Objective: Assessing the role of *lactobacillus acidophilus, Bifidobacterium, Bifidobacterium Infantis,* bacillus coagulants (+coenzymes) in a 10 patients' lot with immunodeficiency and recurrent *Clostridium Difficile* infection where the classical treatment had no results.

Methods: The prophylaxis and treatment of *C. Difficile* were centred on *Saccharomyces boulardii,* but the risk for fungemia was considered high in immunocompromised patients. We studied a lot of immunocompromised patients with the second and third relapse admitted for *Clostridium Difficile* infection throughout 2017. We replaced *Saccharomyces boulardii* with lactobacillus acidophilus, *Bifidobacterium, Bifidobacterium Infantis,* bacillus coagulants (+coenzymes). The doses were low (*lactobacillus acidophilus* - 0,5 mld UFC,) Bifidobacterium 0,5 mld UFC, Bifidobacterium Infantis 0.01 mld UFC, bacillus coagulants 0,01 mld UFC) compared even to the normal doses administered to infants. The rules of observational studies state that during the first 5 days of treatment patients receive Vancomycin. Due to high percentages of patients with comorbidities: diabetes mellitus, neoplasms, ulcerohemorrhagic rectocolitis, grade II,III,IV NIYHA heart failure the treatment options were: Fecal transplant therapy (FMT); Vancomycin in 24h doses/(500 mg-2000 mg); Rifaximin in 24h doses / (600 mg-1200 mg); Metronidazole /24h (1500 mg).

Results: One example of the ten described above dealt with surgically treated colon cancer, hepatic and pulmonary metastases in palliative treatment and *C. Difficile* relapse (3rd episode). Thus at day 5 of treatment we observed white blood cells 3+ (coprocytogram) and more than 10 watery stool after treatment with Vancomycin 2 g + Rifaximin 1200mg + Metronidazole 1500 mg.

The administration of low dose "good bacteria" led to 0 white blood cells in stool sample (coprocytogram) from the first 24 hours' administration and the normalization of the stool.

Conclusions: Low doses of "good bacteria" in relapsed *Clostridium Difficile* immunocompromised patients reduce the number of admission days and treatment costs.

(ID 59) Epidermoid inclusion cyst of the bone – a rare unexpected and peculiar histopathological finding

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Introduction: Intraosseous epidermoid cyst represents a rare benign lesion found especially in the distal phalanges of the hand, toe, temporal and parietal bones, and more rarely in the tibia, ulna, femur and sternum. The origin of intraosseous epidermoid cysts is not clearly known, but there are three main mechanisms that might be involved. The history of trauma, which is also the most prevalent theory, together with the iatrogenic etiology, might be the cause of epidermal cells implantation into the osseous tissue. A third hypothesis is represented by the intraosseous presence of embryonic remnants.

Method: We report the case of a 73-year-old male patient, presented to the plastic surgery department of the University Emergency Hospital in Bucharest with two months history of painful enlargement of the distal phalanx of the index of his left hand. Although he denied trauma, he had a history of injury to the adjacent finger, which led to amputation of the distal phalanx 10 years prior. X-Ray showed a radiolucent lesion with lytic areas in distal phalanx and clinically, a giant cell tumour of bone was suspected. After surgical removal, the specimen was sent to the pathology department of the same hospital for further histopathological investigation.

Results: Haematoxylin and Eosin (H&E) stained section showed am intraosseous cyst wall lined by keratinized stratified squamous epithelium with prominent granular layer. The cyst contained keratin, and the adjacent tissue showed prominent acute inflammation due to the cyst partial rupture. The final diagnosis of EIC was made. Postoperative recovery was uneventful.

Conclusion: Although intraosseous EIC are extremely rare, it should be considered in the differential diagnosis of radiolucent of any lesions, especially in patient with history of previous trauma of the phalanx. In conclusion, it is important to consider intraosseous epidermoid cysts as part of the differential diagnosis prior to the treatment of bony lesions of the terminal phalanx.

(ID 65) Selecting Romanian relevant policies for a Public Health Policy Tool

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Objective: To establish the list of relevant policies at national level in Romania that can produce an impact on hepatitis C virus (HCV) incidence and prevalence of a relevant magnitude to achieve hepatitis C elimination till 2030. The policies list is part of the tool, Let's End HepC Dasboard. Research developed within the Partnership of the Public Health Research Center of UMF "Carol Davila" Bucharest and Unit of Public Health, Universidade Católica Portuguesa.

Methods: A Delphi method was used to achieve consensus among experts in public health and gastroenterology. There were 2 rounds of individual list evaluations, each policy being classified in three categories: existent, desirable, non-applicable in Romania. After each session the revised list was sent to all experts. Finally a consensus meeting was organized, and final list was established.

Results: 24 policies were selected, 1 policy was eliminated: Policy regarding war veteran health status HCV related. Selected policies are grouped in 5 categories and 2 transversal measures.

Awareness (6): National guidelines for diagnostics and treatment HCV/ Patients advocacy HCV/Awareness campaigns HCV /National registry HCV/Legal framework for discriminations HCV/Primary care involvement.

Prevention (6): Prevention policy HCV infection/ Screening for HCV in blood donation/Screening for HCV in tissues and organ donation/ "Safe Health" measures /risk reduction services available to the PWID population/Risk reduction services available in prisons.

Diagnostic (4): HCV testing, screening sites outside the hospital /General population screening/Routine screening of HCV in pregnant women/Free and anonymous HVC testing, targeting high-risk population.

Linkage to care (3): Access to liver specialist for HCV patients/Access to HVC monitoring/Access to social support for HCV patients.

Treatment (3): Access to HCV treatment/Access to DAA treatments/Treatment outcomes assessment

Transversal measures (2). National strategy that includes HCV, clinical/ National strategy that includes HCV with available resources, operational.

Conclusions: There is a sum up of policies that have to be applied to address a public health problem. Almost all public health policies regarding HVC applied in EU States are relevant for Romania too.

(ID 69) The stress level in Faculty of Medicine students

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Stress is a common attribute of the modern society, affecting both mind and body and impacting overall health, well-being and professional performance. Measuring perceived stress level is the first step to cope with, manage stress level and improve health.

Objectives: The aim of this study was to assess the level of perceived stress in undergraduate medical students. The specific objectives are: a) to evaluate the level of stress according to study language and b) assessment of stress levels depending on the year of study.

Methods: An observational descriptive study, in transversal approach was performed. Target population was represented by a sample of 706 students from all academic years, with median age of 22 years for both genders, Romanian (81.4%) and English (18.6%) study language (p=0.0000, Kruskal-Wallis test). The subjects were selected using the snow ball method among the students of Faculty of Medicine of "Carol Davila" University of Medicine and Pharmacy Bucharest, in the academic year 2016-2017. Cohen Perceived Stress Scale with ten questions (PSS-10) was used for data collection.

Results: The overall median score was 20, with 20 in the Romanian group and 19 in the foreign group. Considering that the PSS-10 score higher than the median represents an increased level of stress, 48.7% of the Romanian language students and 46.6% of the foreign students fall into this category, without statistically significant difference (p=0.0651). Depending on the year of study, the median of the scores obtained by the students varies between 18 and 23, with significant difference (p=0.0000). Thus, the highest stress level was recorded in 45.8% of third year students and 45.7% of first year students.

Conclusion: For more than 40% of medical students, stress may represent an important challenge, during all academic years. Measuring perceived stress level and assessing the relation with different personal characteristics can be very useful for shaping specific and personalized interventions.

(ID 71) Is the Communication Skills Ability Scale (CSAS) useful to assess the importance of learning communication skills among Romanian undergraduate medical

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Aim and objectives: Practice of evidence-based medicine requires development of good communication skills.

Aim: to systematically assess the attitude of medical students towards their ability to communicate professionally; to assess the willingness of communication skills acquirement. Objectives: 1) to pilot the CSAS (the Romanian translation: Scala de Evaluare a Atitudinilor privind Abilitatile de Comunicare, SEEAC) in a sample of Romanian medical students from the Faculty of Medicine, UMF Carol Davila; 2) to validate the Romanian version of CSAS (SEEAC) and use it across all study years: I to VI.

Methodology and methods: methodology is quantitative. Data were collected electronically and anonymously. We distributed the Romanian forward-backward translated version of CSAS (SEEAC) among students from all study years during October 2017 - January 2018, within practical projects assigned during public health and management modules. The scale consists of 26 items plus socio-demographic characteristics. We carried out a descriptive analysis of the sample and an analysis of the psychometric characteristics to validate the instrument: factor analysis (FA), principal component analysis (simple PCA and PCI, with iteration); construct validity (Cronbach-). Forward translation was assessed for the quality of cultural and linguistic adaptation. Data analysis was carried out with Stata 13.0.

Results: 361 students responded; 214 were year V students. Distribution by gender: 21% men and 79% women (1:4 ratio). Mean age: 22.6 years ± 2 years sd (median 23 years). Preliminary analysis of the psychometric characteristics: Cronbach- coefficient = 88% for the 26 items; and 90 % for a 20-item scale: 13 items on the positive sub-scale and 7 out of 13 items on the negative sub-scale. A comparative analysis was carried out with the original CSAS. Cultural and linguistic adaptation is good with the exception of item 8.

Conclusion: CSAS (SEEAC) is a useful instrument for the undergraduate medical system. It is conditioned by a rigorous use in order to assess the medical students' attitude towards learning of communication skills.

(ID 79) Risk of exposure in Medical Imagistics at Coltea Clinical Hospital

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Risks related to medical irradiation are two categories: a random or stochastic risk and a direct, deterministic risk. The potential negative effects of ionizing radiation are: induction of neoplasms, increased malformative risk to the fetus if the mother underwent medical exposure during pregnancy, and increased risk of genetic anomalies for future children. Radioprotection is primarily intended to minimize exposure levels in the context of obtaining a correct and complete diagnosis.

Objectives: The purpose of the project is to assess the risk of exposure to radiological activity at the Clinical Hospital Coltea. The objectives are: a) evaluation of patient medical exposure through the recording and reporting data system; b) identifying the dose limits used for all categories of imaging investigations.

Methods: This is an observational descriptive study. The target population was represented by patients admitted to Clinical Hospital Coltea during 2013-2017. Considering protection and safety standards in diagnostic and interventional medical exposure, an electronic patient data recorder was developed for each X-ray generator. The two categories of patient data are: personal data (name and surname, date of birth, personal numeric code, gender, height, weight, pregnancy women) and individual exposure parameters (type of radiological exposure, distance between source and patient, exposure field, kV, mA, mAs, time of exposure, DAP indication).

Results: In the five-year period, the number of radiological investigations had a decreasing trend, the recommended dose being respected, with the differences being between 1% (thorax radiography) and 63% (thoracic spine radiography). Only in the case of abdominal radiographs, their number increased by 40.5%. In parallel, the number of computed tomography scan increased between 30% and 134% in locations such as the brain, throat and sinuses. To investigate certain locations, replacing the radiographs with computed tomography scan is done to reduce the radiation dose and patient benefit.

Conclusion: Recording patient data at the Clinical Hospital Coltea through its own electronic system has made it possible to assess the patient's exposure to radiation, highlighting both the concern to follow the reduction of radiation doses received by patients and avoiding the repetition of unjustified radiological examinations.

(ID 110) Parietal cortex oscillations alteration after cerebellar kainic acid – induced dystonia

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Cerebellar dysfunction plays a crucial role in the pathogenesis of dystonia, a neurological movement disorder that causes involuntary sustained or repetitive abnormal muscle contractions. Motion can be modulated through upstream cerebello-cortical network activity and recent studies sustain the role of parietal lobe in integrating information from vision with somatosensory information during movement.

The purpose of this research is to discover the role of the cerebellum in relationship with cortical oscillatory activities, especially in dystonia, a disorder in which sensory and parietal cortices alter in association with motor cortex.

We obtained dystonia by injecting low doses of kainic acid into the cerebellar vermis in mice for five consecutive days and we investigated the power spectral density and coherences between motor cortex and parietal cortex before and during dystonic attacks. In parietal cortex, we observed changes of power spectral densities with a significant decrease in theta in day 4 of administration and an increase in gamma band in day 5 of administration. The pre-kainat recordings also revealed significant drops in the power spectral densities. Moreover, we found significantly reduced connectivity between motor and parietal cortices, from day 1 to day 5 of dystonia for all frequency bands. In conclusion, this dystonia model revealed a functional reorganization in the parietal cortex and an important loss of motor coordination in mice.

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(ID 123) Integrated health and social services at community level in Botosani County

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Objective: The objective was to create health and social services integrated at community level and consequently to improve access of rural population to these services.

Methodology: Community interventions (started in April 2016 for two years) have resulted in pilot projects that have proposed innovative models for integrating health and social services tailored to the specific needs of communities. In Botosani county two models were proposed: first model (Sulita commune) involves integrated services for vulnerable age groups (children and the elderly), the second model (Dangeni commune) involves vulnerable people (not only age related). Both models started with creation of a socio-medical centre, each organized according to specific approach they had, continued with developing of a community team trained according to the needs. First activity of each community team was conducting a census in order to identify medical and social problems.

Results: Around 3000 persons were evaluated in each commune. In Sulita commune were identified 405 persons with different kind of medical and social needs. From them, 53 elderly people benefit from home care and 100 children benefit from leisure activities and a free lunch. Of the children, 11 children are Roma, 40 have a parent abroad, 60 low-income children (one parent who benefits from salary, some live in the allowance), 17 children from single-parent families. In Dangeni commune, besides caring activities (for around 60 children and 383 elders), project team organized health promotion activities in collaboration with school. Both teams reported communication issues with family physician. Initially, project activities were viewed with reluctance by the population they were addressing, but they were accepted and even sought by vulnerable people.

Conclusions: Throughout the projects, community teams have demonstrated that they can overcome the difficulties involved in the changes imposed by the activities: the reluctance of the population, the difficulty of locating professionals at the local level, the financial difficulties of the community. Both models are innovative and sustainable solutions that can be taken over by other communities in Romania.

(ID 143) Ovarian haemangioma: an elusive histopathological entity

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Background: Haemangiomas of the ovary are extremely rare benign vascular tumors which can coexist with different diseases of the female genital tract. The number of well documented cases does not exceed 60. Having a wide age range, haemangiomas are usually found incidentally during surgery or autopsy.

Case presentation: A 45-year old woman with unremarkable medical and surgical history presented with menometrorrhagia. Physical examination revealed a palpable mass in the lower abdomen. The patient was premenopausal so a total hysterectomy with bilateral adnexectomy was performed and the surgical specimen was sent for histopathological examination. Macroscopically, the uterus presented a giant intramural uterine leiomyoma with myxoid changes. Also, the right ovarian hilum had a heamoragic area, highly suggestive for ovarian endometriosis. However the microscopic examination of the ovary revealed multiple bilateral follicular cysts and an ovarian hemangioma, consisting of multiple, dilated, blood-filled vascular channels lined by a single layer of endothelium. These delicate vascular channels were not separated by connective tissue septa and revealed CD 31 & CD 34 positivity of the cells lining the lumina, confirming their vascular nature.

Conclusion: Although vascular tumors have been reported in other organs, the female genital tract, especially the ovary, is not a common location. The most common locations of ovarian haemangioma are the medulla and hilar regions. These haemangiomas can be distinguished from hilar vasculature when a well-circumscribed and lobulated mass is observed. The treatment of choice is surgical removal of the involved areas. Our case was an incidental finding, being initially diagnosed on gross examination as an endometriotic nodule and then as an ovarian haemangioma confirmed by usual H&E staining and additional ancillary tests.

(ID 164) Motor behavior during kainic acid induced dystonia

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In our experimental model of dystonia we obtained abnormal motor behavior in mice by administering kainic acid on the cerebellar vermis. For the examination, we used wireless electrocorticography and video tracking in freely moving mice and then correlated the electric activity of the brain with the animal behavior. The mice were recorded for six consecutive days, the administration being started in the second day. Comparing with the total time of recording, our results showed an active wake decrease in all days of kainic acid administration. In our assessment we also gave a dystonia score for each 10 minutes of post-administration period and found that the motor alterations reached their maximum after 50 minutes, soon being followed by a constant downtrend for all period of examination. No epileptiform activity was identified during the experiment. To conclude, we found an important drop in the level of activity displayed by the mice during dystonia and the intensity of the symptoms increased gradually in the first hour after the kainic acid administration. In this study we demonstrated that this model of dystonia can be further used to better understand the pathophysiology of dystonia and to find superior new therapies.

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(ID 170) May caffeine intake change the sympatho-adrenal response in sleep deprived persons?

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Objective: The aim of our study was to assess the impact of caffeine consumption on cardiovascular performance in sleep deprived doctors after on call duty.

Methods: We compared 23 patients between 20-35 years old of both gender who used caffeine intake versus 12 without caffeine consumption. The quantity of caffeine consumed was estimated in caffeine units. The cardiovascular parameters were analyzed using impedance cardiography (ICG-M501 from Physiology Department of University of Medicine and Pharmacy Carol Davila, Bucharest, Romania) recordings, ECG and arterial blood pressure measurements. There were recorded next parameters: cardiac output, cardiac index, stroke volume, peripheral vascular resistance, ventricular pre-ejection time. Data analysis was performed using IBM SPSS statistics (SPSS software, version 20.0, Inc., Chicago, IL, USA). Continuous variables were reported as mean (±SD) or median (range) and categorical variables are presented as n (%). Statistical significance was set to $p<0.05$.

Results: We found a paradoxal cardiovascular response in group of sleep deprived cases who consumed caffeine versus those who did not consumed. This response consisted of a significant decrease in stroke volume (from 66,5 mL to 62.5 mL, $p<0.05$), cardiac output (from 5.75 L/min to 49.2 L/min, $p<0.05$), peripheral resistance (1908.2 dyne*sec*cm-5 to to 2210.23 dyne*sec*cm-5 $p<0.05$). Systolic blood pressure had also significantly decreased (126.42 mm Hg before versus 116.5 mmHg, $p < 0.05$).

Conclusion: Caffeine consumption modulates the cardiovascular adaptive response in sleep deprived healthy persons in a paradoxal manner and could be explained at least partial, with adenosine receptors blockage. A limitation of this study is the small number of subjects.

(ID 183) Occupational burnout evaluation in sonographers, radiographers and radiologists: a pilot study

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Objective: Healthcare providers are exposed to job-related stress that frequently leads to the development of burnout syndrome, characterized by emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment. We aimed to evaluate occupational burnout in a group of radiographers, sonographers and radiologists.

Methods: A cross-sectional survey was administered online to radiographers, sonographers and radiologists that participated in 2017 at the European Congress of Radiology. Demographical data were collected and the Maslach Burnout Inventory (MBI) was used to assess occupational burnout. Emotional exhaustion, depersonalization and the sense of personal accomplishment were measured using 22 questions on a 7-point Likert scale ranging from 0 (never) to 6 (every day).

Results and conclusions: 46 radiologists, 8 radiographers and 4 sonographers agreed to partake in our survey. Radiographers and sonographers registered low mean burnout scores for personal accomplishment (27.325 and 26.5, respectively) compared to MBI norms (≥31). One radiographer, 12 radiologists and two sonographers registered high burnout scores for emotional exhaustion (≥27). Two sonographers, 21 radiologists and 4 radiographers had significantly low scores for the sense of personal accomplishment. One radiographer, one sonographer and 9 radiologists scored high for depersonalization (≥13). Overall, one radiographer, one sonographer and 3 radiologists showed high scores on all three stages of burnout. Respondents over the age of fifty and those married/living with their partner (not married) showed low mean personal accomplishment scores. Our study indicates that radiographers, sonographers and radiologists have low sense of personal accomplishment and are at risk of developing burnout syndrome. Further studies are needed to examine factors that lead to burnout in these categories and means to alleviate this condition.

(ID 191) Electromyography spectral power during cerebellar kainic acid-induced dystonia in mice

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Objectives: Considering the abnormal signaling in the cerebello-basal-ganglia-cortical circuit observed in dystonia which is a very disabling disease characterized by abnormal and sustained muscle contraction, we are evaluating whether the cerebellum could be a relevant target for the treatment of motor functions troubles which are associated with the disease. We performed low doses of kainic acid administration on the cerebellar vermis for 5 consecutive days. To evaluate the degree of muscle contraction obtained in our cerebellar kainic acid administration dystonia mouse model, we performed EMG recordings in the neck muscles before and after induction.

Methods: We chose to calculate the power spectral density for each EMG recording for the whole 1 to 100 Hz frequency range. Considering the 2 functional states, pre-kainate and post-kainate, we established by calculus the mean power frequency as the sum of product of the EMG power spectrum and frequency divided by the total sum of the power spectrum. Furthermore, we calculated the median frequency as the value that splits the power frequency analysis into two regions with equal amplitude. We investigated the effects on the EMG spectral power, by performing ANOVA with repeated measures test.

Results: The main output that we report following the examination of the electromyographic recordings is that the median frequency of the muscular power spectral density was increased in all days of experiment. The values were constant in day 1, day 2 and day 3 and recorded a maximum on day 4 and, in day 5, described a downward trend compared to those in the first days. The mean frequency had an incremental evolution in the first 4 days of recording, but started to decrease in day 5 ($F(1.377, 275.4) = 6.116$, $P = 0.0073$). However, all the values were higher than control. The power spectral density described a gradually increase after the kainic acid injection in day 2 until day 5.

Conclusion: These changes plead for an abnormally sustained muscle contraction after the cerebellar kainic acid application. This high muscle activation represents the phenotype of dystonia and is a strong argument for the usefulness of our model.

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(ID 192) Evaluation of workplace stress and job satisfaction among nurses in an emergency hospital in Bucharest

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Objectives: The objectives of this study are: 1) to measure the frequency and de major sources of stress experienced by hospital nurses and 2) to explore the relationship between stress and job satisfaction

Methodology: The Nursing Stress Scale (NSS), developed based on 34 potentially stressfull situations that were identified from literature and interviews with nurses and physicians was applied together with a short questionnaire about job satisfaction to 287 nurses in an emergency hospital in Bucharest. The NSS used in this study is self-administered, requiring less than 15 minutes of the nurse's time. It provides a total score that is indicative of the frequency with which nurses experience stress in the performance of their duties (minimum 0 and maximum 102) and also seven subscales that were used to identify sources of stress (death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses, work load, uncertainty concerning treatment). The seven scales are related with physical, psychological and social environment.

Results: The study group was predominantly female (95% female and 5% male) with an average age of 41.31 (SD = 8.77). Mean score of the total scale was 26.66 (SD=12.18). Two stress factors were identified: work load and coping with death and dying (mean score 7.86 and 7.15 respectively). Average score for job satisfaction was 7.55 (in a scale with maximum 10) with SD 1.7. A negative correlation between total stress score and job satisfaction score (-0.29, $p<0.01$) was obtained.

Conclusions: It is recognized that stress has an effect on work satisfaction, interferes with burnout, affects patient care and is a contributing factor to leaving the profession of nurse. Workplace stress has been determined by a factor related to the physical environment (work load) and one of the psychological factors (coping with death and dying). Work stress has significantly correlated with work satisfaction.

(ID 197) *In vitro* evaluation of polygonum bistorta l. extracts

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Objectives: *Polygonum bistorta L.* (Polygonaceae family) ("bistort" in phytomedicine) has been long used in Asian culture as root vegetable as well as for its' haemostatic and anti-infectious properties (e.g., against *Pseudomonas aeruginosa, Staphylococcus aureus, Salmonella typhi*), generally attributed to its tannins and flavonoids content. In our project we studied further on the bistort polyphenols profile, antioxidant activity and in vitro cytotoxic effect on cultured cells.

Method: Medium-sized powder of plant material was prepared from dried aerial part (herba et flores) of *Polygonum bistorta L.* Two protocols for preparation of ethanolic extracts were used. Quantitative estimation of total phenols and flavones content in extracts were performed. A qualitative analysis of polyphenols in extracts was done by (HP)TLC method. The antioxidant activity of the extracts was assessed was by chemiluminescence using the luminol-H2O2 system. The cell cytotoxicity of the extracts was evaluated using the real-time impedance based assay (xCELLigence RTCA system) performed on cultured NIH3T3 mouse embryonic fibroblast cells.

Results and conclusions: (HT)PLC qualitative analysis indicated the predominance of flavonoid compounds (quercetin, kaempferol and luteolin derivates), and several phenyl carboxylic acid derivatives (caffeic and chlorogenic acids). Quantitatively, the analyses indicated 1.15 mg total phenols content (1.72g GAE) and 1.26 mg total flavones content (1.89g R) per 100g plant powder. The antioxidant assay showed a high antioxidant activity, the E21 bistort extract presenting an antioxidant potency exceeding the one of the gallic acid reference (IC50=0.57μg GAE/mL). The cell cytotoxicity tests showed a cytotoxic effect on NIH3T3 cells growth for concentrations above 25μg GAE/mL. The effect on cell proliferation was present aprox. 4h after adding the bistort extract in the cell medium followed by cell death within the next aprox. 3h. The concentrations of the solvents corresponding to sample dilutions did not affect the cell growth. The IC50 value, representing the plant extract concentration causing 50% growth inhibition, was calculated at 12.88μg GAE/mL sample, showing thus a high cytotoxic activity of the bistort extract against the fibroblast cells (according to U.S. National Cancer Institute plant screening program, IC50<20 μg/mL are considered high cytotoxic).

(ID 203) The influence of haplotype HLA-C(C1/X,C2/X) in evolution after HSCT

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Background: Haplotypes of patients with acute leukemia like ligands or not for inhibitors and activators donors KIR allele in HSCT are subjects of studies in a few specialised clinics; it is an evidence that haplotypes can be protective or not against postHSCT complication, easier to try to demonstrate at patients with genoidentical donors.

Aims: Haplotype HLA-C(C1/X,C2/X), homozygot and heterozygot variants(HLA-C1/C1,HLA-C1/C2, HLA-C2/C2) seems to have influence at patients with acute leukemia after HSCT.

Methods: Eighteen pairs patients-donors are evaluated: patients with acute leukemia, lymphoblastic and non-lymphoblastic and their genoidentics donors. One patient have HLA-C1/C1 haplotype, seven HLA-C1/C2, ten HLA-C2/C2. Following the impact of inhibitory KIR2DL1, like ligand for C2,KIR2DL2,KIR2DL3 for C1, activatory KIR2DS1 for C2,KIR2DS4 for C1, on survival and complication development, we proved the protective effect of presence of HLA-C2/X haplotype, HLA-C1/X, respectively. The source of HSCT was PBSC. The method used was PCR-SSP (Innotrain DIAGNOSTIK GMBH, Dynal BIOTECH PEL-FREEZE). The complications like graft versus host disease acute and chronic, relapse, TMA and the recovery with leucocytes and thrombocytes are followed.

Results: Presence of HLA-C1 haplotype is protective in presence of KIR2DS4 (activatory allele) with statistical significance for thrombocyte recovery but no influence against aGVHD and relapse; in presence of KIR2DL2, KIR2DL3 (inhibitory allele) against relapse, TMA, a/cGVHD, leucocytes and thrombocytes recovery, without statistical significance. HLA-C2, in presence of KIR2DS1, and also in presence of KIR2DL1 protective against TMA and relapse, cGVHD, also leucocyte and thrombocytes recovery, without statistical significance, except aGVHD (no influence) and observation for absence HLA-C2 with protective effect against relapse („missing ligand").

Conclusion: Presence of HLA-C1/X,HLA-C2/X improve survival and offer minor protection against most complication at patients with acute leukemia and related donors with 100% allele match, in presence of both types of KIR alleles.

(ID 207) To prevent epidemics and pandemics through Science in Society actions in research

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Objectives: ASSET (Action plan in Science in Society in Epidemics and Total pandemics) aims to forge a partnership with complementary perspectives, knowledge and experiences to address affectively scientific and societal challenges raised by pandemics and associated crisis management.

Method: We conducted a second cross-sectional study, including people from different regions of our country. We applied the questionnaire during an internet and/or email interview with the citizens. Data were analyzed using EpiInfo 7.1.4.0.

Results: Most of the participants, 87% have heard about the existence of the measles epidemic in Romania, and 75% have heard about the influenza epidemic in 2017-2018 season. More than 72% of the informed people (on these topics) had acquired the information through mass media or from their friends and family, and 38% from the public health authorities. Regarding the responsibility to communicate public health information, 95% of the interviewed people underlined the necessity to obtain accurate information from health professionals and national authorities, especially in cases of epidemics or pandemics.

Most of the people involved in the study (76%) consider that the utmost way to provide information in times of epidemics and/or pandemics is through communication from public health authorities to the citizens. In comparison with the previous study (5.88%), 8% would prefer the dialogue through social media platforms. Most of the citizens think that public health authorities should be more active, should participate in public debates, and should collaborate more active with citizens during epidemic threats, in order to involve the community in the decision-making process.

Conclusions: Learning from the last epidemics (measles and influenza) and having in mind some recent outbreaks, health authorities should better collaborate with different institutions and should think more profound to better communication methods. In any plan for prevention and control activities the citizens should be considered as potential partners. Better and innovative strategies for collaboration should be conceived.

(ID 228) Measurement of liver salivary markers in patients with metabolic syndrome

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Introduction: Salivary markers identification represents a simple, useful method for diagnosis and investigation of several diseases. Previously, we showed that the relationships between plasma and salivary concentrations of function markers could be relevant certain markers for in patients with new onset diabetes mellitus. Based on these findings, we evaluated the variations of saliva enzyme activities in patients with metabolic syndrome.

Material and method: A group of 35 both gender patients, age between 45-70 years old were diagnose with metabolic syndrome according to international accepted criteria. After informed consent obtaining, saliva and blood samples were collected. All parameters were assayed using RA -50 Chemical Analyser, Bayer Technicon. Reads were done at in duplicate at 340 nm. Statistic analysis was done using IBM SPSS statistics (SPSS software, version 20.0, Inc., Chicago, IL, USA). Results were reported as mean (±SD) or median (range) with a statistical significance set to $p<0.05$.

Conclusion: We identified significant differences between regarding the liver function in samples collected from saliva versus samples collected from blood for the most liver enzymes, suggesting that salivary determination remain to be a second choice in metabolic syndrome patients.

(ID 6) Lemmel syndrome in a 84 year old patient with persistent dyspepsia

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Introduction: Duodenal diverticula are detected in up to 27% of patients undergoing upper gastrointestinal tract evaluation and periampullary diverticula (PAD), located within 3 cm of the ampulla of Vater, are the most common type. Although PAD are usually asymptomatic, they can determine a compression of the intrapancreatic part of the common bile duct with resultant upstream dilatation of the extra- and intrahepatic bile ducts and obstructive jaundice (Lemmel syndrome).

Case description: A 84-year-old patient with cholecystectomy, atrial fibrillation and hypertension presented with a 6 month history of intermittent nausea, vomiting and upper abdominal pain.

On physical examination, there was tenderness on his right upper quadrant. Laboratory tests revealed mild leucocytosis (12000/mm3) with 81% neutrophils, cholestasis (total bilirubin 1.6 mg/dl; direct bilirubin 0.8 mg/dl; alkaline phosphatase 343 IU/L and γ-glutamyl transpeptidase 1044 IU/L), hepatic cytolysis (aspartate aminotransferase 120 IU/L; alanine aminotransferase 260 IU/L) and slightly elevated values for amilase (256 IU/L) and lipase (190 IU/L). Upper endoscopy revealed a periampullary diverticulum, an erythematous duodenal mucosa, including the ampulla of Vater and bile reflux gastritis.

Abdominal CT scan showed a 37/33 mm periampullary diverticulum, making compression on the distal common bile duct (CBD), with a CBD diameter of 13 mm and intrahepatic ducts diameter of 5 mm. There was no image of choledocolithiasis or local neoplasia. Magnetic resonance cholangiopancreatography confirmed the diagnosis and excluded a possible neoplasm of the liver, bile ducts or pancreas. The patient was treated for 7 days with intravenous ampiplus and metronidazole, proton pump inhibitor and metoclopramide, with favorable evolution.

Discussion: Lemmel's syndrome is a rare cause of obstructive jaundice and imaging is very important to correctly identify and diagnose this condition and prevent mismanagement.

Symptomatic patient can be managed endoscopically or by surgical intervention but, in relatively asymptomatic patients, conservative treatment is recommended.

Conclusion: We presented a case of a patient with persistent dyspepsia, in which the diagnosis was Lemmel syndrome. The medical treatment was successful, and was preferred to surgery, due to the patient age and mild clinical symptoms.

(ID 7) Parental expectations and potential reasons for off-label usage of nebulized medication in children

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Background and Aim: Lately was documented in our country a significant increase of nebulized medication delivered for respiratory diseases. Authors are aiming to describe parental perception regarding nebulized medication in the new era of on-line communication and education.

Material and methods: Two questionnaires were posted in a large and representative group (more than 70 000 followers) of parents and physicians, Virtual Children's Hospital („Spitalul Virtual de Copii").

Results: 4048 answers were submitted. 94% responders confirmed using wet-nebulized medication in their children and 92% of these used this approach on a regular basis in any acute respiratory setting. An unusual aspect documented was dexamethasone off-label usage via nebulizer in two-thirds of children. Another 7% of responders confirmed receiving an indication to nebulize a normal saline suspension with dexamethasone phosphate for parenteral usage, but they didn't follow the indication and used an approved treatment. 75% of children that received nebulized medication had a prescription for off-label use of dexamethasone isolated or in combinations with other off-label prescriptions. More than 20 different drugs not licensed for inhalation were prescribed for children.

Conclusions: This is the first large study on nebulized medication aspects in our country. 95% of children receive nebulized medication for many trivial respiratory diseases. Nebulizer is regarded by parents as a simple tool that can solve almost all issues related to airway diseases and accept easily off-label prescriptions. This aspect should be addressed by regulatory authorities and national Pediatric Guidelines should reinforce caution with off-label drug usage in children.

(ID 13) NK cell receptor (KIR) diversity and the impact on HCV infection outcome

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Introduction: Hepatitis C virus (HCV) infects over 170 million people in the world and most people go on to develop a lifetime chronic infection that can result in severe liver pathology. Substantial evidences suggest that the innate immune system significantly contributes to HCV outcome. Natural Killer (NK) cells have important anti-viral functions including direct cytotoxicity of infected cells and the production of inflammatory cytokines. Killer cell immunoglobulin-like receptors (KIR) play a major role in regulating the activity of NK cells involved in immune response in viral infections.

Aim: The aim of our study is to analyze the KIR genotype in patients with chronic hepatitis C infection and the impact of different KIR genotypes on disease progression and response to antiviral treatment.

Material and methods: The study has been conducted on 120 HCV chronic infected patients. All were HIV and HBV negative. For KIR genotyping and viral load assessment were used molecular biology methods, SSP (Sequence Specific Primer) method and Real-Time PCR method, respectively.

Results: Our preliminary results have shown that patients with *KIR2DS2* and *KIR2DL2* genes had a higher probability to become chronically HCV-infected. In addition, the presence of *KIR2DS3* but not *KIR2DS5* gene was associated with lower levels of viremia. KIR2DS3-positive patients also had lower mean values of bilirubin than KIR2DS3-negative ones.

Conclusion: KIR genes play an important role in the immune response against HCV and may be reliable prognostic factors that modulate the progression of the chronic infection and the response to antiviral therapy.

(ID 15) Ferritin test – a first step in diagnosing outpatient elderly anemia-clinical case

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Introduction: Anemia is a frequent diagnosis in the elderly. Hypochromic microcytic anemia, usually secondary to iron deficiency is the most common type. Iron deficiency may be due to nutritional deficiency or blood loss, including gastroenterological malignancy or gastritis. Ferritin is the most useful blood test for differentiate iron deficiency anemia (ferritin values <100ng/ml) of anemia due to chronic diseases (ferritin values >100 ng/ml). Studies show that ferritin values <18ng/ml increase the probability of iron deficiency to over 95%. Levels of ferritin may increase irrespective of iron stores in cases of chronic disease.

Methods: An elderly 89 year old is hospitalized in the geriatric department for altered general condition, asthenia, loss of appetite, bloating and chronic constipation without significant weight loss. Clinical examination reveals pale and dry mucous membranes, abdominal pain in the epigastrum, reduced functional capacity (ADL=4/6 pts, IADL=4/8 pts). Biologically, serum hemoglobin reduced (7.7g/dl) with microcitosis (MCV= 68 μm ^ 3,) and hypochromia(MCH=20.4 pg, MCHC=30 g/dL), inflammatory syndrome (Erythrocyte sedimentation rate=98 mm/1h). Ferritin levels and additional blood test together with chest X-ray and abdominal ultrasound exam were the first steps taken to establish the etiology of anemia.

Results: Blood test show a chronic kidney disease (Glomerular filtration rate=51.32ml/min) and test of bacteriuria and hematuria were negative. Complete blood count excluded signs of leukemia. Chest X-ray excluded a metastatic pulmonary disease or lymphoma. Ferritin levels were 12.3 ng/ml, specific for iron deficiency anemia. The most frequent gastrointestinal diseases at the elderly are gastritis and test for Helicobacter pylori antigen performed was found positive. In the same way, to exclude colon or gastric cancer, we analyzed the tumor marker tests Carcinoembryonic Antigen (4.64 ng/ml) and Cancer antigen 19.9(17.11u/ml), which was normal. The Adler test was negative and abdominal ultrasound exam did not found locally or advanced tumor lesions.

Conclusions: Hypochromic microcytic anemia puts each physician in front of deficiency cause research. It is difficult to diagnose iron deficiency anemia coexisting with anemia of chronic diseases at the elderly. Ferritin test is the first step in diagnosing this type of anemia and easy to use in any outpatient clinic.

(ID 17) Imaging diagnosis in infectious complicated eye trauma – clinical case

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Introduction: Eye trauma may range from small injuries produced accidentally to complex lesions that can cause marked decrease or even loss of vision. Causes may be common, but always require rapid diagnosis and correct treatment to prevent complications.

Methods: A 59-year patient with no significant pathological history, shows the eye's progressive tumefaction accompanied by ocular pain and decreased visual acuity, one-week onset symptomatology. The general-altered condition, with chills and profuse sweats. The initial difficult anamnesis, later revealed a recent episode of labor, apparently banal (cut wood without glasses).

Results: Ophthalmologic examination: TER=digital hypotonic; ER=conjunctival chemosis+, corneal edema, anterior chamber with intense inflammatory reaction+++, a reactive pupil. ERultrasound: Multiple variable-size opacities distributed in the vitreous cavity. CT native: Marked right exophthalmia. Densification of predominantly upper palpebral periocular soft tissue. Deformation of the anterior pole of the eyeball. MRI: Right ocular globe exophthalmia with posterior margin at 2 mm from the bizigomatic line. The right eye ball has a crenelate appearance and a slight collapse of the internal margin of the vitreous suggestive for rupture (on the contrast sequences). Heterogeneous content with FLAIR hypersemnal is suggestive for a collection at the vitreous body and at peri/retro orbital fat level. Cristal detached from normal position and moved backward in the vitreous body. Edema of adjacent soft parts. No foreign body is visualized. Without orbital bone fracture, thrombosis or acute intracranial bleeding. Laboratory analyzes: leukocytosis (15,18/$10^3/\mu$L) with neutrophilia(11,53/$10^3/\mu$L), inflammatory syndrome (Fibrinogen=553 mg/dl; C reactive protein=46.0 mg/L). Conjunctival secretion culture positive with *Klebsiella pneumoniae* for which local and general treatment in combination, according to the antibiogram. The unfavorable progression with clinical worsening (feverish and abnormally purulent secretions, marked periorbital edema) recommends surgical intervention as a treatment method. Intraoperative is identified the upper bulb conjunctival plague and a 7mm diameter scleral plague near the supero-medial wall with purulent content. The evisceration of the eyeball and the discharge of purulent content are practiced. Postoperative, local and general favorable evolution.

Conclusions: In ophthalmic trauma to prevent severe complications, it is necessary to present it to the specialist as soon as possible. Imaging exams and especially MRI are particularly useful in the rapid diagnosis of ophthalmic certainty in order to preserve visual acuity.

(ID 18) Uncommon association of two anatomical variants of cerebral circulation: a fetal-type posterior cerebral artery and artery of Percheron

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Background: The paramedian thalamo-mesencephalic anatomical territory is vascularized by small perforating arteries emerging from the pre-communicating segment (P1) of the posterior cerebral artery (PCA). The artery of Percheron (AOP) is a rare vascular variant in which a single dominant thalamo-perforating arterial trunk arises from one P1 segment, bifurcates, and provides bilateral supply to the paramedian thalami and the rostral midbrain. Occlusion of this uncommon vessel is responsible for 0.1-2% of total ischemic strokes, manifested as bilateral thalamic infarction, with / or without rostral midbrain involvement, with a relatively symmetrical distribution. A thorough literature search revealed only 160 case reports of AOP infarction, since Percheron`s first communication in 1973 (corresponding to an incidence of 3.5 new cases/year, all over the world). A unilateral complete fetal variant of the posterior cerebral artery (F-PCA) is present in 4-26% of all individuals, being characterized by the congenital absence of the P1 segment. In this fetal variant of circle of Willis, PCA arises directly from the ipsilateral internal carotid artery.

Case presentation: This is a retrospective case study of a 37-year-old man with multiple lifestyle risk factors (chronic marijuana and tobacco abuse), who suffered an acute thalamic-mesencephalon stroke, rapidly worsening to a comatose state. After restoration of consciousness, he clinically manifested as paramedian midbrain stroke (Weber`s syndrome, improving to Benedikt's), with favorable outcomes after neurorehabilitation. Neither prothrombotic state nor a cardiac source of embolism was found. Imaging demonstrated acute paramedian thalamic infarctions with asymmetric mesencephalon lesions, and a posterior fetal-type circle of Willis.

Discussion: This case highlights a rare association of two anatomical variants of the posterior circulation: a right-sided full F-PCA and AOP contralaterally. The combination of high-risk factors and peculiar neurovascular pattern predisposed to local hemodynamic imbalance and stroke. Multifocal reversible cerebral vasoconstriction encountered in chronic cannabis abusers, might be the physiopathological mechanism implicated. Fundamental correction of lifestyle and the sustained, complex neurorehabilitation program were the basis of the favorable clinical evolution at 6 and 12 months respectively.

(ID 20) A rare symptom (erythromelalgia) in a patient with complex, intricate and severe cardiac, hepatic, renal, metabolic, and neoplastic disorders

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Objective: Revealing the complex problems raised by a rare symptom (erythromelalgia), apparently unrelated to the core pathology of the patient, but troublesome enough to limit the therapeutic options. Erythromelalgia is a rare condition characterized by burning pain, redness, increased skin temperature, and swelling in various parts of the body, most often the hands and feet. It may be primary or secondary to various conditions (mostly neoplastic) or medications.

Material, methods and results: A 63 year old woman with a history of refractory heart failure, mechanical mitral valve (for rheumatic valve disease), permanent atrial fibrillation, chronic hepatitis B virus infection, liver cirrhosis (mixed etiology: cardiac and viral), stage 3 chronic kidney disease, left mastectomy for breast cancer, right breast cancer, type 2 diabetes mellitus was admitted to the hospital with minimal exertion dyspnea, orthopnea, dry cough aggravated in supine position, abdominal discomfort due to distension by ascites. Physical exam: blood pressure 100/60 mmHg, irregularly irregular heart rate of ~85 bpm, bilateral basal rales, increased abdominal girth due to ascites, generalized edema extending to the abdominal wall, oliguria. Chest x-ray: bilateral basal shadowing. Echocardiography: well-functioning mitral prostethic valve, aortic valve disease, slight depression of the left ventricular systolic function, severely dilated right cavities, severe pulmonary hypertension, severe tricuspid regurgitation. Treatment: repeated paracentesis, Furosemide in continuous infusion, spironolactone, Dopamine infusion when necessary, beta-blocker, anticoagulation, oral antidiabetic, antiestrogenic agent. On the second day of Furosemide infusion, erythromelalgia developed after the first ten hours of infusion and worsened progressively, it abated after the infusion was discontinued, but recured the next day after only two hours of infusion and rapidly became severe enough to force infusion cessation. The patient acknowledged that she had had several episodes of erythromelalgia during the previous two years unrelated to Furosemide.

Conclusion: In our patient, erythromelalgia could be a paraneoplastic event, it may be related to medication (Furosemide, the antiestrogen), it may be the harbinger of a myeloproliferative disorder (the patient also had high uric acid, for which however breast cancer may be an alternative explanation), it may be facilitated by the systemic arteriolodilatation typical for cirrhosis.

(ID 24) Medical students and e-Cigarette

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Objectives: The electronic cigarette is a topical subject that hides multiple controversies. The reaction of medical staff, especially the medical student in training, is little known and deserves to be studied.

Methods: A 26-field questionnaire was applied online to the students of medicine from the six years of study to see what the attitudes were toward the electronic cigarette. 176 students in medicine (67.4% girls), 48.6% where non-smokers, 41.4% smokers and 10% ex-smokers.

Results: 74.9% of smokers want to leave, 86.2% do not consider the current law to be too rough, 86.1% consider that daily smoking is with high risk, 24% that occasionally smoking high risk. E cigarette wasn't used by 54.6% of smokers; 21.5% of non-smokers have tried the e cigarette. The e cigarette is more dangerous than the conventional one for 14.3%, less for 36.6%, with same effect for 31.4% and 17.7% do not know the answer. Its regular use is free of risk for 1.1%, slightly risk for 9.1%, moderate for 30.3% and sever for 48%; 11.4% do not know the answer. 88.6% of smokers hope the e cigarette will help them to quit, but 57.7% think it helps them to avoid the current law. 37.1% of the group of smokers and non-smokers consider using this e cigarette out of curiosity.

Conclusions: The Romanian student in medicine is not prepared to react and advise others on the topic of e cigarettes. Current courses in the curricula must address this topic in order to prepare for the future the Romanian physician.

(ID 26) The profile of extracellular antioxidants in lichen planus associated with hepatitis C virus infection

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Introduction: Lichen planus (LP) is a chronic inflammatory dermatosis affecting the skin and/or mucous membranes. Although several pathogenic mechanisms have been described so far, its etiology remains unknown. There are numerous studies attesting the association between LP and hepatitis C virus (HCV) infection, a fact that suggests a possible role of the virus in the occurrence of LP lesions. In addition, recent research has shown the involvement of oxidative stress in the pathogenesis of both LP and HCV infection.

Method: We performed a study on 35 patients with LP. The patients were divided into 2 groups according to their serum HCV positivity. We evaluated the profile of extracellular antioxidants (bilirubin, uric acid, albumin, iron, transferrin, ferritin, copper, ceruloplasmin and total antioxidant status - TAS) in the two groups.

Results: No significant differences were found when compared the levels of bilirubin, uric acid, albumin, iron, transferrin, ferritin, copper and ceruloplasmin between the two groups. We detected a statistically significant decrease in TAS levels in HCV positive patients compared to HCV negative patients.

Conclusion: Our findings revealed lower TAS levels in LP patients with HCV infection compared to LP patients without HCV infection suggesting a possible involvement of HCV in the pathogenesis of LP.

(ID 27) Characteristics of elderly patients hospitalized for influenza in the 2016-2017 season in a reference center for infectious diseases in Bucharest, Romania

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Objectives: We assessed clinical and virological characteristics of the cases of severe acute respiratory infections (SARI) hospitalized in a reference infectious diseases center in Bucharest.

Methods: We screened patients above 65 years old hospitalized for signs and symptoms compatible with influenza infection in the National Institute for Infectious Diseases Prof. Dr. Matei Bals, Bucharest, Romania, during the 2016-2017 influenza season, as part of the I-MOVE+ study.

Assessments included a standardized questionnaire for collection of clinical data, underlying conditions, vaccination and relevant past medical history, and a PCR test for influenza viruses, performed from nasopharyngeal secretions.

Results: The study included 53 patients, with a mean age 78.1 (±7.9) years old, and balanced gender distribution (26 males, 27 females). Only 2 (3.8%) patients had been vaccinated for influenza in the current influenza season, 4 (7.5%) in the previous season (2015-2016), and 3 (5.7%) in the season 2014-2015. Forty-two patients (79.3%) presented cardiovascular disease, 15 (28.3%) diabetes mellitus, 10 (18.9%) pulmonary disease, 7 (13.2%) renal disease, 7 (13.2%) rheumatologic disease, 6 (11.3%) liver disease, 2 (3.8%) hematologic cancer, 1 (1.9%) non-hematologic cancer, most patients (50.9%) associating multiple comorbidities. Ten patients (18.9%) presented obesity, 2 (3.8%) were current smokers, and 9 (17%) were past smokers. Twenty patients (37.7%) had laboratory-confirmed influenza: 18 A/H3N2, 2 B/Victoria; none of them had been vaccinated. All cases of influenza occurred in patients with comorbidities, as follows: 9 patients (45% of positive cases) had one comorbid disease, 6 (30%) had 2 comorbid diseases, and 5 (25%) had 3 or more comorbid diseases. We identified a statistical trend for influenza occurrence in patients with comorbidities (100% of influenza cases vs. 82.6% of negative cases), p=0.050.

Conclusions: Influenza cases clustered in patients with numerous comorbidities, and the two influenza subtypes circulating in the 2016-2017 season in elderly patients in Bucharest were A/H3N2 and B/Victoria.

Funding: "I-MOVE+ - Hospital-based test negative case control studies to measure seasonal influenza vaccine effectiveness against influenza laboratory con-

firmed SARI hospitalization among the elderly across the European Union and European Economic Area Member States". European Union's HORIZON 2020 research and innovation programme grant agreement No 6334446.

(ID 29) How common are neurologic abnormalities in polycystic liver disease?

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Introduction: Polycystic liver disease (PLD) can occur isolated or in association with autosomal dominant polycystic kidney disease (ADPKD), with most patients being asymptomatic and having normal liver function.

Objectives: To identify the presence of cerebral aneurysms and other neurologic abnormalities associated with PLD.

Material and methods: Pilot study conducted at the Gastroenterology Department of Fundeni Clinical Institute, involving 10 patients. Assessment protocol included clinical and neurological exam, EEG, laboratory workup, abdominal CT and brain MRI.

Results: All patients were females. Mean age was 55.3±4.2 yo. Four patients presented isolated PLD and six had ADPKD, of which one received liver transplant and one received both liver and kidney transplant. Mean hepatic volume was 6945.1±3389.6 cm^3. Mean MELD score was 7.9±1.6. Normal kidney function was found in 9 patients. Apart from one patient with positive left Lasègue sign, all neurologic exams were normal. EEG identified spikes, occurring isolated or in short bursts, in 4 patients, with one presenting predominant theta activity. Brain MRI showed unspecific demyelinating lesions in 9 patients, with predominant frontal-parietal location. There were globus pallidus T1-hyperintensities in one patient and SWI-hypointensities of the globus pallidus, dentate and midbrain nuclei in another. Only one patient with ADPKD presented cerebral aneurysms involving the right vertebral artery (5.5 mm fusiform), M1 segment of right MCA (9.7 mm saccular) and M1 segment of left MCA (3 mm saccular).

Conclusions: Although neurologic abnormalities were identified on paraclinical evaluation, most of them are unspecific and attributable to vascular-degenerative changes and/or subclinical hepatic encephalopathy. Cerebral aneurysms were found in one patient.

(ID 30) Diagnosis of malignant disease: sometimes, it is too late

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Introduction: The thyroid neoplasm is the most common malignancy of the endocrine system.

Case presentation: A 77-year-old male, with a history of type-2 diabetes mellitus, ischemic cardiomyopathy, degenerative aortic valvular disease, stroke, presented for orthopnoea and dyspnoea at rest during the last 6 hours. The clinical examination detected enlarged lymph nodes in the left supraclavicular fossa and axilla, crackles on both lungs, atrial fibrillation. The blood tests revealed leukocytosis, hyperglycemia, lactic acidosis. The CT scan showed a large nodular left thyroid lobe, with multiple cervical adenopathies and partial thrombosis of the left jugular vein, important left pleurisy and atelectasis. Echocardiography revealed pericardial effusion, of 1 cm. Pericardial puncture with histopathological examination revealed numerous atypical cells, suggestive of a stage IV thyroid neoplasm. The surgical evaluation concluded that the patient has a stage IV (T2, N2, M1) thyroid tumor, without surgical indication. He was discharged from the hospital, with the recommendation of a fine needle aspiration biopsy in a specialized center. Three weeks later, the patient presented with the same symptoms, but more severe. Because of hemodynamic instability, he was intubated and mechanically ventilated. Multiple organ failure (metabolic, renal, hepatic) appeared, with cardiac arrest and exitus.

Conclusions: The diagnosis of thyroid neoplasm has been done in a late stage. The cardiovascular comorbidities led to a rapidly unfavorable evolution, which did not allow the histopathological confirmation. However, identification of malignant cells in the cytological examination of pericardial fluid, associated with suggestive imaging of thyroid neoplasm, suggested the probable diagnosis of thyroid malignancy.

(ID 38) Growth disorders of genetic causes

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Introduction: Physiological growth and development in children are determined by both genetic and environmental factors. Many genes are implied, in a concerted, specialized manner. If one gene is mutated, the consequence may be either minor or lethal.

The aim of our work is to present a case series, from our practice in the Clinical Emergency Hospital for Children MS Curie Bucharest, children that had a growth disorder of a genetic cause.

Material and methods: From the larger group of children with short stature (high inferior to - 2DS according to age and sex), we have selected those presenting dysmorphic features and / or malformations, suggestive for a genetic syndrome. We used the Orphanet database for establishing the diagnosis. Along with a complete clinical exam and anthropometric measurements, we have performed: X rays, ultrasound exams (abdominal, ecocardiography, soft tissue), lymphography, scintigraphy, CT exams and other laboratory investigations. In some cases, genetic analyses were performed: array CGH or targeted genetic screening, using the PCR sequencing method.

Results: We present a 7 cases series, 3 of them with short stature: Seckel, Ehlers Danlos tip 1, Fryns syndrome; 3 with segmental growth anomalies: Kippel-Trenaunnay, Ruvacalba, Proteus syndrome and a case situated between Genetics and autoimmunity: trisomy 21 (Down syndrome) with severe celiac disease, resulting in a severe growth retardation. Phenotypes are illustrated with suggestive photos. All cases represent rare or ultra-rare diseases in pediatrics. Particularities of treatment are revealed for each case.

Conclusion: Growth disorders of genetic causes present with either short stature, hyper-stature or segmental body anomalies. Management for these cases requires an interdisciplinary approach, by a mixed medical-surgical team. Precise diagnosis along with genetic counseling enables us to make an individualized prognosis.

(ID 41) Healthcare-associated *Clostridium difficile* infection in a tertiary care hospital in Bucharest

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Background: Clostridium difficile infection (CDI), the most common healthcare-associated (HA) infection, has either hospital-onset or community-onset.

Objective: To describe the incidence and characteristics of HA-CDI in a tertiary care infectious diseases hospital.

Methods: We conducted a prospective study including all adult patients diagnosed with HA-CDI, acquired during hospitalization in our institution, between March and August 2017. CDI diagnosis was based on the presence of diarrhoea and detection in the stool of the genes coding for CD toxins using polymerase chain reaction (PCR) and/or toxin detection.

Results: We recorded a total of 330 CDI episodes, from which 266 (80.6%) were classified as HA-CDI. Fifty-eight (17.6%) of them (7.4/1000 of hospitalized patients during the studied period) were acquired during hospitalization in our institution and included in the study. Twenty-six (44.8%) patients were male and the median age was 62 years (IQR: 42-70 years). The median Charlson comorbidity index was 4 (IQR: 2-6). Fifty (86.2%) cases were first episodes of CDI. Thirty-two (55.2%) patients had a concomitant condition leading to immunosuppression. We identified previous use of antibiotics in 49 (84.5%) patients, gastric acid suppression in 25 (43.1%) patients, immunosuppressive therapy in 3 (5.2%) patients and chemotherapy in 4 (6.9%) patients. Recent history of gastro-intestinal surgery was found in one patient. Diagnosis was based on PCR detection of the genes coding for CD toxins in 50 (86.2%) cases, toxin detection in 3 (5.2%) cases and using both tests in 5 (8.6%) cases. In patients with CD gene detection the ribotype 027 was found in 47 (85.4%) cases. There were 27 (46.5%) cases with hospital-onset and 31(53.4%) with community-onset. Twenty-five (43.1%) patients had concomitant bacterial infections, requiring systemic antibiotic therapy. The median ATLAS severity score and SOFA score were 2 (IQR: 1-4) and 1 (IQR:0-2) respectively. Fifty-two (89.7%) patients had favorable outcome, one (1.7%) patient required transfer to another unit and 5 (8.6%) patients died, but only one death was related to CDI.

Conclusion: The proportion of HA-CDI acquired during hospitalization in our institution was low. Half of them had community-onset. Most HA-CDI were associated with previous use of antibiotics, were mild and had a favorable outcome.

(ID 42) The correlation between psoriasis area severity index and dermatology life quality index in patients treated with etanercept

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Introduction: Psoriasis is a chronic, immune-mediated disease characterized by erythematous, well demarcated plaques covered by silvery-white scales, most often located on the knees, elbows, sacral area and scalp. Any area can however be affected. The psychological burden of the disease is very important and the quality of life of these patients is impaired.

Objective: to determine if there is a correlation between the severity of the disease and the quality of life before and after treatment with etanercept.

Methods: this was a retrospective study performed on patients receiving biological treatment with etanercept through the National Program for Psoriasis. The severity of the disease was measured with the psoriasis area severity index (PASI) and the quality of life was measured with the dermatology life quality index (DLQI) validated for the Romanian language. PASI and DLQI were measured at baseline and after 3 months, 6 months, 9 months and 12 months, as per protocol. Correlation analysis between PASI and DLQI was performed with Spearman's rank correlation coefficient. A p value <0.05 was considered statistically significant.

Results: 68 patients treated with etanercept were included in the study. A moderate correlation was found between PASI and DLQI at baseline ($r= 0.62$, $p=0,001$) and a weak correlation was found after 12 months of treatment ($r=0.23$, $p=0.05$). No correlation was found after 3 months ($r=0.14$, $p=0.24$), after 6 months ($r=0.15$, $p=0.19$) and after 9 months ($r=0.18$, $p=0.14$).

Conclusion: in this study we found a moderate correlation between PASI and DLQI at baseline and a weak correlation after 12 months of treatment with etanercept. A more severe disease is more likely to be associated with an impaired quality of life. On the other hand, patients will cope better with the disease if the treatment is successful.

(ID 54) Evaluation of liver transplantation in pediatrics: results of 15 years of experience

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Objective: Evaluation of symptoms and etiology of chronic liver disease in children admitted in the Pediatric Gastroenterology Department of I.C. Fundeni, between 2002-2017, that were included on the liver transplantation waiting list and their evolution.

Method: 170 children (age 3 month-17 years) in advanced stages of liver disease with severe prognosis were included in the study and were investigated to establish the etiology of chronic liver disease by: functional liver tests, abdominal ultrasonography, endoscopy, hepatic biopsy, serological tests for hepatitis B, C, specific testing for metabolic diseases and autoimmune hepatitis.

Results: Their PELD/MELD predictability score was calculated. Patients evolution was monitored until hepatic transplantation, exclusion/cancellation from the waiting list or post LT (acute/chronic rejection with the need for surgical reintervention; complications related to initial pathology, associated surgical pathology and immunosuppression).

The patient survival rate in 1 year and 5 years (65-80%) as well as those of graft survival were similar to those at European level. Some differences have been noticed only on the frequency of etiopathogenic indications, with a higher incidence of Wilson disease patients with liver transplantation.

Conclusions: The main cause of severe hepatic disease in children who imposed liver transplantation was found to be cholestatic disease (mainly atresia of bile ducts), followed by cirrhosis/hepatitis of infectious cause, metabolic diseases (especially Wilson disease) and, very rarely, liver tumors. Large differences in the etiology of terminal liver disease were found according to the age of the child. The subsequent evolution was struck by the initial etiology of the disease (the best response, without the recurrence of the initial disease, was observed in patients with Wilson's disease, unlike those with infectious etiology that had an increased frequency of recurrent infection of the hepatic graft). Among the noted features we mention the relatively high duration of the waiting period on the transplant list and the problems specific to the paediatric age associated with the pathology related to recovering the growth deficit, the long time evolution with immunosuppression regimens and the related occurrence of malignancies.

(ID 55) Pediatric Wilson disease: evolution and therapeutic strategies

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Objective: In children with Wilson's disease, liver disease form is the most common manifestation at onset or can often complicate the forms with neurological onset. We aim to evaluate the effectiveness of different treatment methods in pediatric age: chelating agents, in different therapeutic schemes or orortotopic liver transplantation (OLT).

Methods: During 2012-2017 were investigated 41 children, 17 girls and 28 boys (aged 4 y to 17y). The diagnosis was based on: low serum ceruloplasmin (under 0.2 g/l), increased urinary copper level (24h after intake of D-Penicilamine as therapeutic test), the presence of Kayser-Fleischer rings and histological signs of specific hepatic impairment.

First line of treatment was chelation using D-penicillamine, Zinc salts, Trientine and combination. To determine compliance to treatment we measured the level of urinary copper excreted in 24 hours every 6 months. For selected cases OLT was performed.

Results: At the onset, patients presented in variable proportions neuropsychiatric (6) and hepatic symptoms (26), especially at small ages. Patients investigated for familial history (8) showed only changes in laboratory tests and characteristic genetic changes. Especially after the age of 15, patients experienced mixed symptoms, the most common combination being hepatic and neurological. Cases with hepatic impairment (8), chronic hepatitis (16), autoimmune hepatitis (2), hepatic cirrhosis (11), minor hepatocytolysis (4) were observed in the evolution of patients with predominantly hepatic symptoms.

An improvement in liver function was observed in patients with hepatic manifestations treated with D-Penicilamine and Zinc. In those with over added neurological impairment, a partial remission was observed and a stabilization of the degree of hepatic impairment. Adverse reactions were monitored – especially haematological and autoimmune ones. Patients with hepatic impairment and hemolytic anaemia had a favorable evolution after liver transplantation.

Conclusions: Any hepatic damage of unknown origin with positive family history requires the diagnosis of Wilson's disease to be taken into account. The sooner the chelation therapy is introduced the higher its efficiency; In symptomatic patients was obtained a significant improvement in hepatic impairment. The OLT is a pertinent option with outstanding results especially for patients with fulminant hepatic failure or drug intolerance.

(ID 57) The opinion of medical students on tobacco consumption and the effect of the new antismoking law

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Objectives: Tobacco consumption is the leading preventable cause of death in the world. As future healthcare workers, medical students are directly involved in the matter, being able to positively influence their patients, therefore improving their quality of life. The purpose of this study is to accurately evaluate their opinion and knowledge on tobacco control and consumption.

Methods: Our study was carried out between December 2017 and January 2018, involving 1438 subjects, medical students from various universities in Romania. Using an online form, the students were asked to answer a series of questions regarding their smoking habits, exposure, opinions on tobacco control legislation, as well as knowledge on tobacco products and consumption. Based on these answers, the subjects were divided into 2 groups: non-smokers and smokers. For each group, statistics were made in order to assess the differences between them.

Results: The form revealed 67.2% of the subjects to be non-smokers and 32.8% smokers. Only 36.3% of non-smokers and 37.9% of smokers had attended tobacco related courses. While 90.1% of non-smokers and 56.4% of smokers supported the tobacco control legislation before introducing new amendments, the percentage has increased to 98.1% for non-smokers and 75% for smokers. Although most subjects supported the new legislation, only 65.1% of non-smokers felt that they were sufficiently protected by it, while only 2% of smokers quit following its implementation. The most requested amendment in legislation was to strengthen the law and increase penalties, with 33.2%, followed closely by the request for isolated lounges for smokers, with 30.6%.

Conclusions: Students smokers have not enough formal education regarding the consequences of tobacco consumption. Despite the introduction of new tobacco control legislation we need other concerted actions to o ensure a satisfactory level of education and protection of the future Romanian doctors.

(ID 63) Non-pharmacological treatment in multiple sclerosis

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Introduction: Fatigue and spasticity, two most frequent complaints in multiple sclerosis (MS) patients significantly affect quality of life (QoL) but they are the symptoms best addressed by complementary treatments. Non-pharmacological interventions can reduce spasticity and fatigue and improve QoL.

Methods: We studied 74 patients with MS, mean age 36.7 years and mean duration of disease 11.2 years, having a mean EDSS 3.5±1.5 points. A group of 39 patients followed a complex and constant rehabilitation programme for 6 month and was compared to a group of 35 patients who didn't receive this kind of therapy. All the patients completed the Quality of Life Scale, Modified Ashworth Scale for Grading Hypertonia and Fatigue Assessment Scale (FAS) at baseline and after 6 month.

Results: 31 patients out of the 39 who followed a complex and constant rehabilitation programme had after 6 months an improved QoL (1-hour rehabilitation training twice weekly: physical activity programms including, stretching, walking, massage, coordination exercises) had an improved QoL.7 patients remained in the same status and 1 patient reported a decrease in his QoL. From the 32 patients of the second group, without nonpharmacological therapy after 6 months, 14 declared an improvement in QoL, 21 had an unmodified status and 4 patients considered a worsening of their QoL.

Conclusions: The study showed variable results. Fatigue is not associated with disease duration, but if present, it can be improved, as well as spasticity with constant non-pharmacological interventions.

Spasticity was less improved by the rehabilitation training than fatigue, even in patients who reported improved QoL.

(ID 64) Clinical-imaging correlations in stroke

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Introduction: Stroke is one of most important pathology in neurology and long term disability establishes a great burden for patients, families and society.

Methods: retrospective demographic and clinical data analysis for 120 patients admitted in our Department during January-June 2017 with symptoms compatible with stroke. All patients performed a cerebral tomography (CT). All other pathologies like brain tumors, infections or trauma were excluded. There were 50 men (41.7%) and 70 women (58.3%) with a mean age of 73.5 years old. 69.2% of the patients were from urban areas and the rest from rural ones, as access to medical services is greater in town zones.

Results: Ischemic stroke was found in 82.5% of the cases, transitory attacks in 13.3% and 4.2% patients had a hemorrhagic stroke.26.7% patients had atrial fibrillation and 2 patients (1.7%) were discovered with this arrithmia with the occasion of stroke. Carotidian atheromatosis was found in 66.7% cases and critical stenosis in 24.2% ones. Initial CT scan revealed pathological changes only in 55% of the cases, but repeated examination after 24 hours increased this percent to 86.7%. From 38 patients with no initial signs on CT scan only 5 patients came in the therapeutic window for thrombolysis, as health system is not very well organized for acute stroke management. 61.7% patients had stroke in middle cerebral artery, 9.2% in posterior cerebral artery, followed by anterior artery and basilar branches.

Conclusion: Time is essential in management of ischemic stroke and all efforts must be done for improving accessibility to latest methods of revascularization.

(ID 66) Quality of life, health status, stress, life satisfaction and motivations in Romanian diaspora in Spain

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Background: Romanian's migration is one of the most debated topics on the public agenda, nowadays. According to the UN International Organization of Migration, 14,87% of all the Romanians lived outside Romania in 2015. Beyond statistics, there are real people with their own perceptions and motivations regarding a possible return.

Aim: To assess the level of perceived Quality of life, life satisfaction, stress level and motivations for remaining / returning of the Romanians living in Spain.

Materials and methods: Observational cross-sectional study, conducted in March-May 2017 in a sample of adult subjects from Romanian Diaspora, selected through "snow ball method" from different regions of Spain, using an e-questionnaire for data collection. Perceived Quality of Life, health, stress and life satisfaction have been quantitatively measured. Motivations for staying/returning were expressed by answering open questions.

Results: Out of the 251 responders, 90% were between 18-50 years (mean 38.07y, St. Dev. 8.5). Quality of life in Spain was considered good/very good by 76.4% of the responders, 72% being satisfied/very satisfied with their current life and 84.7% considered their health status good/very good. The average scores for perceived stress and wellbeing (min 0, max 10) are 5.79 +/-2.8 and 7. 33 +/-1.9, respectively. Only 22.4% would like to come back to Romania, 44.9% having no intention to return. The top five reasons for not returning were lower quality of life, poor access and lower quality of public services (health, education) comparing to Spain, corruption, lack of job opportunities and children's future.

Conclusions: Most of our study subjects live in Spain good quality lives, in good health and with low/moderate stress, less than a 1/4 having the intention to return. Focus on public policies addressing the identified problems may contribute both to stimulate the return and prevent emigration.

(ID 82) Vascular status in adults with diabetic peripheral neuropathy

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Aims: The aim of our study was to investigate the association between vascular status and the presence of diabetic peripheral neuropathy (DPN) in patients with newly diagnosed type 2 diabetes mellitus (T2DM).

Material and methods: The vascular screening was performed using a Fukuda Denshi Vasera VS 1000 device. DPN was diagnosed according to the guidelines for diagnosis and outpatient management, based on symptoms and signs.

Results: Out of 303 patients, 143 (47%) did not have DPN and 160 (53%) were diagnosed with different stage of DPN. Male gender predominate among patients with DPN (52.5% vs. 47.5%). The subjects with, compared to those without DPN have a significantly higher systolic blood pressure (143.25 vs. 138.25 mmHg, p=0.01), a higher arterial estimated age (64.29 vs 60.30 years, p=0.01), although the age at diagnosis was not statistically different. Also the CAVI (cardio-ankle vascular index) value, as a surrogate marker of arterial stiffness was higher in first group (8.42 vs 8.04, p=0.03). The regression analysis of relationship between the severity of DPN and CAVI has shown a positive correlation. There were no differences between two groups regarding the metabolic balance (HbA1c, lipid profile) and anthropometric features.

Conclusion: The arterial stiffness links with the presence and the severity of DPN in newly diagnosed patients with T2DM, not related to metabolic status.

(ID 86) Gait rehabilitation using classical and computerized methods in patients with cerebral paralysis

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Introduction and Aim: Gait problems due to spasticity in the lower limb is a positive sign of upper motor neurone syndrome commonly found in Cerebral Paralysis. The rehabilitation process consists in lowering the spasticity in the affected muscles thus increasing the patient's quality of life by restoring or improving the gait. At present, computerized therapy joins classical rehabilitation in order to obtain the highest result possible and at the same time, motivating the patients.

Used methods: The study has included 10 patients hospitalized in C.N.C.R.N. Dr. Robanescu Bucharest Hospital, aged between 3-19 years, diagnosed with Cerebral Paralysis enrolled in a physical therapy program customized according their specific conditions. Gait analysis was carried out using computerized instrumentation offered by BTS G WALK monitoring in real time 9 parameters (analysis duration, speed, cadence, step length, stride length, stance phase duration, swing phase duration, double support duration, single support duration). The initial assessment was made at the beginning of the hospitalization before the injection with botulinum toxin and the final assessment was done after 2 weeks of physical therapy and computerized therapy using the LOKOMAT. Exoskeleton rehabilitation is a system whose difficulty level can be adjusted depending on the patient's driving performance and is based on augmented virtual reality thus wanting to keep an elevated level of motivation.

Results: After 2 weeks of training, there was found an improvement in 80% of the patients in all 9 parameters monitored.

Conclusions: Computerized gait rehabilitation with active participation of patients and the injections with the Botulinum Toxin have proven beneficial results in a brief time. The toxin relaxes the spasticity of the muscles while the Lokomat enhances the progresses made with the classical physical therapy techniques and also keeps the patient informed of his/her progress.

(ID 88) Cognitive determinants of self-efficacy in cancer patients

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Objectives: Self-efficacy may represent in cancer an indicator of the patient's resources to adjust to the difficulties brought by the disease and by its evolution. Increasing self-efficacy is a worthy therapy aim, however this could be limited by other psychological variables. In this study we assessed the measure in which self-efficacy in cancer patients is associated to anxiety and low emotional expression, both measured as personality traits.

Method: This research is part of a larger, ongoing study and was performed on a group of 60 cancer patients (33 women and 27 men) (age range: 30-80), hospitalized for chemotherapy at the Institute of Oncology - Bucharest between January and March 2018. The study design was transversal and included the administration of the Anger Expression Scale (Spielberger et al., 1986), the State-Trait Anxiety Inventory (STAI) – part 2 (Spielberger et al., 1970) and the Generalized Self-Efficacy Scale (Schwarzer & Jerusalem, 1995).

Results: Scores of the study variables were measured on an interval scale, with focus on self-efficacy and emotional expression below the first quartile, and of anxiety-trait above the third quartile. A significant correlation was found between low self-efficacy and the low emotional expression (Pearson's chi square = 4.950, df 1, p = 0.026). Similarly, low self-efficacy correlated to high trait anxiety (Pearson's chi square = 4.364, df 1, p = 0.037). These correlations were independent of patient's gender and age.

Conclusions: These results highlight the existence of two trait variables (anxiety and low emotional expression) potentially undermining self-efficacy and, as a whole, the psychological resources of patients fighting cancer. Further longitudinal studies are necessary, in order to identify the direction of this relationship, the influence of disease stage and location, and the possible synergic effect of these associations.

(ID 89) Parental psychological impact of pediatric asthma and acute lymphoblastic leukemia

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Objectives: To determine depression, anxiety, quality of life and stress at parents of children suffering of bronchial asthma (BA) and acute lymphoblastic leukemia (ALL), as well as their determinants.

Method: The design of the study was transversal. The participants were 55 parents (45 women, 10 men, mean age = 36.5) of children diagnosed with BA (27) and ALL (28). The set of questionnaires comprised Depression, Anxiety and Stress Scale-21 (DASS-21), Pediatric Asthma Caregivers Quality of Life Questionnaire (PACQLQ), Parent Stress Survey (PSS). A semi-structured interview offered demographic data and specific information about child's illness.

Results: The highest levels of depression, anxiety and stress were recorded in parents over 40 years old (in BA) and in parents between 20-30 years old (in ALL). Parental stress was higher in parents whose children were diagnosed with BA for more than one year compared to those diagnosed less than a year ago (p=.03). Parents of leukemic children had higher levels of depression (p=.01), anxiety (p=.005) and stress (p=.02) than parents of asthmatic children. Quality of life was lower in parents with asthmatic children (p=0.05), especially in what concerned the ability to run daily activities (p=.02). Quality of life and emotional function were lower in parents of ALL children when the diagnosis time was less than 6 months.

Conclusion: A possible explanation for the higher scores of DASS and PSS in parents over 40 years old could be the longer evolution of BA, with many complications which can have a cumulative effect, while ALL could have an earlier greater impact, due to the unfavorable prognosis. Compared to parents of BA children, those of ALL children had higher scores in depression, anxiety and stress, potentially caused by the higher aggressivity of this disease and its treatment. However, quality of life was reported by them as higher, reflecting better coping mechanisms and a more adequate fulfillment of their emotional needs.

This study highlights the particularities of parents with high risk of emotional distress in BA and ALL, offering viable targets for psychotherapeutic intervention or counseling in selected cases.

(ID 93) Multiparametric MRI evaluation in benign prostatic hyperplasia: a very useful tool

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Objectives: The purpose of this paper is to present and illustrate the morpho-functional changes occurring in the prostatic tissue in patients developing benign prostatic hyperplasia (BPH), in regard to literature information and clinical relevance.

Methods: Forty-two male patients aged 41 to 81 (mean age = 63 years) were included in this study. All patients performed a multiparametric MRI (MPMRI) investigation in our department between January and December 2017, and were diagnosed with BPH, confirmed in 18 cases also by biopsy. A dedicated MPMRI protocol was applied for all patients on a Toshiba or Siemens 1,5 Tesla MR machine, using T2 weighted, DWI and 3D T1 perfusion acquisitions after i.v. contrast media injection, measuring morphological and functional parameters: prostate size and symmetry, transitional zone (TZ) signal intensity and homogeneity, peripheral zone (PZ) size and structure. Diffusion weighted-imaging was used, with b-values 1000 and 1500 s/mm^2, with apparent diffusion coefficient calculated for transitional and peripheral zones. All incidental findings were logged. Prostate specific antigen analysis was available in all patients, with values between 0.78-26.69 ng/ml.

Results: Mean prostate volume was 75.02 ± 50.61 cc, with an asymmetry between lobes noted in 24 cases, favoring the median lobe in 12 cases. All patients considered had imaging changes of BPH, that consisted of stromal, glandular nodules and cystic ectasia in the TZ, showing or not zonal enlargement. Focal T1 hyperintensities in the TZ were found in 8 patients. Regarding the TZ, ADC map values ranged between 1148.73 ± 168.87 *10-6 mm^2/s. PZ thinning was found in most patients, average circumferential size being 6.42 mm. There is a direct correlation between PZ size decrease and prostate volume (p=0.0007). In 25 cases, BPH caused urinary retention, bladder calculi and bladder diverticula.

Conclusion: MPMRI is an invaluable tool in prostate tissue characterization, completing clinical and biological information. Overall, ADC map values demonstrate high values, pointing towards a benign substrate.

(ID 96) Prevalence of malnutrition risk in the elderly population and associated factors

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Objective: To evaluate the malnutrition risk and its relationship with medical history and clinical severity in the elderly population.

Method: Pilot study, transversal descriptive, on a sample of 300 patients admitted between September 2016 and May 2017 at ANA ASLAN INSTITUTE OF GERIATRY AND GERONTOLOGY. The data were collected through the interview method, clinical observation sheets and anthropometric measurements. The malnutrition risk was assessed using the mini nutritional assessment questionnaire. The data were processed and analyzed with specific statistical methods.

Results: Of the 300 patients aged between 65 and 89, women accounted for 80%. The mean age was 75, 08 years, with a significantly higher value in males (76.93 years vs. 74.63 years, p = 0.0264) 61.33% of the patients were from the urban area. The analysis of the body mass index showed that 41.67% of the subjects were normo-ponderal, 19.67% underweight and 38.67% had overweight. The analysis of associated pathologies revealed predominance of cardiovascular and rheumatic diseases (29.8% and 29.2% respectively), followed by diabetes, osteoporosis (10.8% and 7.9%), depression and cognitive impairment (7.9% and 7%). Regarding the pre-existing pathologies, 45.33% of the patients had a disease, 47.67% had two diseases and 6.66% had three or more diseases. Nearly half of the patients (48.33%) did not have previous hospitalizations, while 47% had 14 days of hospitalization in the last year and 2% of them, 10 days of hospitalization. The malnutrition score averaged 22.27. More than 51% of the sample experienced malnutrition or malnutrition risk. The analysis of the relationship between malnutrition score and pre-existing diseases showed an association of malnutrition with rheumatic diseases (p = 0.0290), cognitive impairment (p = 0.0013) and depression (p = 0.0015). At the same time, there were found associations between the weighting and the nutritional score categories (p = 0.0012). Cumulative pathologies, depression and cognitive impairment increase the risk of malnutrition by 48%, 79% and 82%, respectively. Each10-year-olds bring a 49% risk to malnutrition, and the excess weight bring a 49% protection for malnutrition.

Conclusions: The study highlights an alarming percentage of the malnutrition risk in people over the age of 65. This requires the mandatory assessment to identify the hospitalized patients at risk and the implementation of the integrated approach at hospital and then at community level.

(ID 98) Case report of an internal jugular thrombosis – a differential diagnosis challenge

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Introduction: Internal jugular thrombosis, which represents less than 5% of deep vein thromboses, is usually caused by central venous catheter insertion, intravenous drug abuse and metastatic cancer.

Before using antibiotics, the main cause were infections. Complications include pulmonary embolism, septic emboli and cerebral edema.

Methods: We report the case of a 87-year-old female, presenting at the Emergency Department with a

2-day recent history of left cervical pain, edema and torticollis. The clinical examination revealed a fever of 39°C and left arm edema, with inflammatory tumefaction of the supraclavicular fossa. From her history we note an endometrial tumor, treated with radio chemotherapy 18 years prior, and a family history of two offspring suffering from Behçet's disease. Initial workup of the case included a Doppler echography and a CT scan, which confirmed the thrombosis of the left internal jugular and subclavian veins, with surrounding soft tissue mass.

Results: Immediate empirical antibiotic treatment with piperacillin/tazobactam and vancomycin was started, as well as apixaban anticoagulation. Thoracic and abdominal CT scan and echography did not reveal ongoing malignancy. A transthoracic echography was performed to rule out the possibility of infectious endocarditis. Laboratory tests and personal history infirmed the hypotheses of tuberculosis, thrombophilia and connective tissue diseases. MRI confirmed the inflammatory nature of the mass surrounding the thrombosed veins. As other etiologies were infirmed and the clinical condition of the patient improved under antibiotherapy, she was diagnosed with Lemierre syndrome. On further enquiry, she confirmed a recent history of angina.

Discussion: Lemierre syndrome signifies septic thrombophlebitis as a rare complication of oropharyngeal infections, with an incidence of 0.6-2.3 per million. Treatment includes antibiotics, with anticoagulation in case of thrombus extension and ligation/excision of IJV in case of uncontrolled sepsis. Untreated, the thrombus may lead to septic emboli, usually in the lungs, and the infection may spread to adjacent tissues.

Conclusions: This case highlights the need to consider this rare complication of common infections, and to confirm the oropharyngeal infection through interview and a bacterial culture to avoid delayed diagnosis and the complex differential diagnostic of this clinical presentation.

(ID 100) Malaria in Romania, from 2009 to 2016

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Objective: Malaria is a vector-borne disease caused Plasmodium species and transmitted by the bite of an infected female Anopheles mosquito. Malaria is one of the major public health problems, causing around 1 million deaths annually. In present transmission occurs in Africa, Central and South America, Asia, Eastern Europe and the South Pacific. During the 20th century the EU become malaria-free, most reported malaria cases were travel related. A small number of autochthonous cases were reported over the last 10 year (Greece 2009-2013, 2015, Spain 2010, France 2014). Romania was declared malaria-free area in 1967, but imported cases were yearly recorded. To describe the malaria cases reported in Romania between 2009 and 2016.

Materials and methods: We performed a retrospective descriptive analysis based on the annual reports from the National Centre for Surveillance and Control of Communicable Diseases and The European Surveillance System TESSy. Malaria is mandatory notifiable diseases in Romania and a passive surveillance system is in place since 1978.

Results: During studied period, 244 malaria confirmed cases were reported, with a peak in 2014 (47 cases). All cases were imported, the large majority (91.8%) from Africa. The travel purpose was work related in 216 cases (88.5%); other categories were tourists 14 (5.73%), students 8 (3.3%), and immigrants 4 (1.6%). Eighteen cases (8.5%) were foreigners. Plasmodium Falciparum was identified in most of the cases 187 (76.6%), followed by Plasmodium Ovale (7.8%) and Vivax (7%). There were 7 reported deaths (2.9% case fatality rate) with ages ranging between 24 and 65 years old; 6 of them were male. Only 7% of the cases underwent chemoprophylaxis.

Conclusions: All cases of malaria were imported, in person travelling in the endemic areas. Awareness, chemoprophylaxis and protection against mosquito bites among person travelling in endemic country are important to prevent disease. The potential for the reappearance of malaria in Romania exists due to the global climate change, the presence of vectors and imported cases, but is relatively small. Continuous surveillance is needed, including increased awareness among clinicians to identify and report malaria cases to the authorities and ensure an appropriate public health response.

(ID 101) Depression in young adults diagnosed with cancer – an analysis of 1970 British Cohort Study

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Abstract: Although the prevalence rate of depression occurring in people with cancer is high (15% to 25%), and depression is a known disabling cause leading to poorer prognosis, less research was conducted in this respect for people with early onset of neoplastic disease. The purposes of our study are to analyze in a large cohort (BCS-70) the risk of depression in patients diagnosed with cancer at youth (less or equal 30 years).

Methods: Data used in our paper were drawn from the 1970 British Cohort Study (BCS70). The design and conduct of this study have been described by Bynner JM (update in 2013). Depression was assessed with Malaise Inventory as per by Rutter et al (1970). Data for the present paper are drawn from 16, 26 and 30 years wave (association with cancer).

Results: At age 30 there are 136 patients diagnosed with cancer out of 11210 (1.2%). At age 30, we have found 1409 people (12.56%) with depression. At age 16 only severe cases of Depression were selected representing 83 out of 5344 patients (1.55%). There is no increase in cancer rate risk at age 30 for people having depression at age 16 (OR =.988, CI=.985-991, p=.627). At age 26, there were 1233 people with depression (16.05%) out of 7678 total people evaluated. Depression at 26 years did not represent risk factor for cancer age 30 (OR= 1.193, CI=. 662-2.150, p=.671). There is a solid increase in risk of depression for people diagnosed with cancer by the age of 30 years compared with people without cancer (Exp (B)=2.327, CI=1.527-3.445, p=.001). We have found no increase in risk of depression for people with cancer at 30 years by socio-economic status (Exp(B) =.946, CI=.745-1.200, p=.946).

Conclusion: The above data indicate that risk of depression is higher in people with onset of cancer before 30 years old. Our study did not identify an increased risk for depression by socio economic class. Data of our study clearly suggests that it is extremely important that young patients with somatic diseases like cancer should be aggressively screened and treated for depression.

(ID 102) ECG evaluation of the ventricular repolarisation during long term hormone therapy for advanced prostatic cancer

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Aim: To evaluate the proarrhythmic effects of luteinizing hormone-releasing hormone (LHRH) antagonists in advanced prostate cancer by determining the surface ECG parameters of electrical instability.

Method: We investigated 24 men (pts) with advanced prostatic cancer treated by orchiectomy and LHRH antagonist degarelix. We noted clinical history and excluded pts with atrial fibrillation, heart failure (HF) NYHA III and IV class, acute myocardial infarction (MI) in the last 6 months, chronic renal disease stages IV-V. We performed ECG, Holter ECG, echocardiography and evaluated QT interval dispersion (QTd), Tpeak-Tend interval (Tpe), J-Tpeak interval (JT), (in V5), Low class ventricular premature beats (VPB) on Holter ECG, left ventricular ejection fraction (LVEF) before the beginning of the treatment (V1) and after 3 (V2) and 6 months (V3). We used paired t-test for comparing the differences.

Results: Pts were 67.5 +/-10 years old. 18 (75 %) had arterial hypertension, 13 (54.1%) stable angina, 6 (25 %) old myocardial infarction, 5 (20.8 %) diabetes mellitus, 5 (20.8%) chronic renal disease grade 1-3b. They were stable during the study. 18 (75%) pts had an increase of the QTd (83 +/- 10 ms), JT (78 +/- 30 ms) between V1 and V3, statistical significant (p=0.02). Tpe changes were variable. We did not note an increase in the number or severity of VPB between V1, V2 and V3. Mean LVEF was 60+/-5, stable between V1 and V3.

Conclusion: In pts with advanced prostatic cancer receiving LHRH antagonist for 6 months the values of QTd and JT duration had a rising tendency. TPe changes were variable. No increase was noted in the number or severity of VPB during the first 6 months of treatment.

(ID 103) Meningoccocal disease – evolution in Europe and Romania, 2011-2016

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Introduction and objective: Meningococcal disease is a vaccine preventable disease with significant morbidity and mortality among infants and adolescents. Approximately 10% of cases are fatal.

Bivalent (A/C) and tetravalent (ACYW 135) polysaccharide meningococcal vaccines have been available since the 1970s.The first meningococcal B vaccine was licensed in the EU in 2013 and was introduced into the routine immunization programme in the UK in 2015 and in Ireland 2016. Our aim was to describe the evolution of meningococcal disease in Romania and in Europe between 2011-2016.

Methods: The study is based on the annual reports of the National Center for Surveillance and Control for Communicable Diseases and the European Surveillance Reports. In Romania meningococcal disease is a mandatory notifiable diseases.

Results: In Romania, during the studied period, 363 confirmed and 21 probable cases were reported (average incidence 0,30 cases/100 000 population). There were 54 deaths (14% case fatality rate). The most affected age group was 0-4 years (44,2%). 60.7% of cases were male. The highest number of cases was registered in spring (March - April). Of the 363 confirmed cases, the serogroup was known for 188 (51.8%). The most frequent serogroup was B (66%), followed by C (22.3%) and A (4.7%). In Europe the average incidence rate was 0.64 cases /100 000 population, highest among infants younger than one year of age, followed by 1-4 years of age and adolescents (aged 15-24 years). Most cases were determined by the B serogroup.

Conclusion: The incidence rate of meningococcal disease in Romania was below the European average. The most affected age group was <5 years, both in Romania and Europe, and serogroup B was most frequently identified. Vaccination represents the most important measure to prevent the disease. Other measure to control and prevent meningococcal disease is management of cases and their contacts.

All the authors had equal contributions.

(ID 105) Knowledge about toxoplasmosis among pregnant women in Romania

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Objectives: One of the most severe consequences of the Toxoplasma gondii infection in pregnant women is vertical transmission to the fetus. Although rare, but severe, congenital toxoplasmosis can become a life threatening disease and as studies show, prenatal education is still poorly provided. The objective of this study is to evaluate the knowledge regarding awareness and prevention measures regarding Toxoplasma gondii infection among pregnant women in Romania.

Methods: This study was performed on 117 women of reproductive age all over Romania, living in rural and urban area too, irrespective of their pregnancy status. The survey consisted of 35 questions evaluating any kind of prenatal education and behaviour regarding the most common but potentially severe conditions during pregnancy. The questions were designed with predefined answers and the answers were introduced and analysed in EpiInfo (version 7).

Results: The participants had a median age of 30 years old, 77.11% living in the rural area. We present the answers of some of the questions. 68.29% have heard about this parasite, but only 28.92% have been tested. Half of the pregnant women obtained their info from medical staff, while more than 70% from the internet.

Conclusion: The results showed that there is little knowledge among women of reproductive age concerning the infections that can be acquired during pregnancy and also basic prophylactic methods. Prenatal education in the medical office, but also supported by national campaigns could have a positive effect in improving general behaviour. If informed, women could have a more preventive conduct and avoid Toxoplasmosis and the risk this disease implies. Furthermore, prenatal screening should be taken into consideration and recommended by the gynaecologist as a usual practice. This could be the most effective way to raise awareness among population and reduce incidence of congenital toxoplasmosis.

(ID 106) Coronary vasospasm-induced polymorphic ventricular tachycardia triggered by abdominal pain

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Introduction: Coronary vasospasm is a rare but significant cause of myocardial ischemia and ventricular arrhythmias. Several triggers for coronary vasospasm have been identified, among which nociceptor stimulation is an uncommon but potential precipitant.

Case report description: We report the case of a 74 year-old woman admitted to the emergency department for recurrent episodes of palpitations and chest pain following acute abdominal pain. Her history was unremarkable for cardiovascular disease, but she was known with biliary lithiasis. There were no abnormalities found during physical examination, except for a systolic murmur at the left sternal border. The ECG on admission showed sinus rhythm, normal axis and ST-segment depression with T-wave inversion in the precordial leads V1-V5, DI and aVL. Echocardiography revealed hypokinetic lateral and inferior walls, with a left ventricular ejection fraction of 45%, moderate mitral regurgitation and the troponin-I was negative. Hospitalization was decided. Holter-monitoring later revealed large ST-segment elevation degenerating into non-sustained episodes of polymorphic ventricular tachycardia with R/T phenomenon. Diagnostic coronary angiography was performed, showing CX artery with diffuse spasm at first injection, which resolved after intracoronary nitroglycerin administration, but with minimal coronary stenosis otherwise. The arrhythmic episodes repeated several times during cardiac monitoring, always following pain in the right hypochondrium. Abdominal CT scan was performed the next day, revealing important dilation of the intrahepatic biliary ducts, main biliary duct and Wirsung duct, with wall inflammation and a large calculus of 7/4 mm in the distal segment of the main duct with progressive decalibration towards a hypertrophied duodenal papilla.

Results: Treatment with oral calcium channel blocker was initiated (diltiazem 180 mg/day – 60 mg TID), and metoprolol was ceased, with no recurrence of the arrhythmic events. Ursodeoxycholic acid was also added to the treatment. The patient was later referred to the Gastroenterology service for ERCP and specific treatment.

Conclusions: There are few case reports in literature describing local pain as a trigger for coronary vasospasm. Calcium-channel blockage is the cornerstone of treatment in vasospastic angina, but specific treatment must be addressed to the precipitating cause, when identified.

(ID 113) Factors that influence hypertension control in patients with type 2 diabetes

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Objectives: Hypertension is common among patients with type 2 diabetes and it is a major factor for both macro and microvascular complications of diabetes. There are strong evidences that support targeting blood pressure reduction to at least <140/90 mmHg in adults with diabetes. The purpose of this study was to analyze the metabolic and treatment particularities of hypertensive patients with type 2 diabetes who are in target with the tension levels or who have achieved an improvement in hypertension control.

Methods: We analyzed 101 patients with type 2 diabetes and hypertension who came in the diabetes office of the Clinical Hospital Prof. Dr. Th. Burghele ambulatory between October 2016 and October 2017. The patients were evaluated at the initial visit and reevaluated after 3 months. Study variables were patient demographics, systolic and diastolic blood pressure values at the two visits, metabolic parameters and therapeutic classes of hypertension treatment. We analyzed separately the controlled group, which had a blood pressure under 140/90 mmHg, and the improved group, which had a statistically significant decrease in the blood pressure between the two visits.

Results: In the total group, 51.5% (n=52) were women and the mean age was 64.37+/-9.45 years. At baseline, the mean systolic blood pressure was 151.93+/-23.14 mmHg, and the mean diastolic blood pressure was 80.19+/-12.4 mmHg. After 3 months of treatment, 59.4% (n=60) of patients were therapeutically controlled and 27.7% (n=28) had an improvement in blood pressure control. In the improved group, BMI was statistically significant lower than in the rest of the lot (p=0.017), but there was no statistically significant difference in age, blood glucose, HbA1c, creatinine or LDL-cholesterol values. Therapeutically controlled patients had a statistically significant lower creatinine than uncontrolled patients (p=0.049) and 59% of them (n=23) required 3 or 4 therapeutic classes for blood pressure control.

Conclusions: Improvement of blood pressure control was achieved in patients with diabetes who had a lower BMI and was independent of diabetes control and LDL cholesterol value. Patients with diabetes who had blood pressure in target had a better kidney function and required a combination of 3 or 4 antihypertensive drugs.

(ID 114) A case of IgG4-related disease associating a renal carcinoma

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We present the case of a 49 year old male patient, nonsmoker, who presented initially with fever, weight loss and abdominal pain. The CT and IRM showed masses in both kidneys, as well as pulmonary nodules in left lower lobe and was diagnosed as kidney cancer with lung metastasis. In May 2016 right nephrectomy was performed and was referred to thoracic surgery for lung metastasectomy. An atypical resection and nodule resection was performed in left lower of left lung. Histology of the kidney showed a chronic inflammation with marked desmoplasic reaction. The lung nodules showed an abundant inflammatory lymphoplasmacytic infiltration, eosinophils and fibrosis with storiform pattern. Immunohistochemistry and specific IgG4 staining proved the presence of IgG4-positive plasma cells, affecting both kidneys and lungs. Patient received systemic steroids, with complete disappearance of lung nodules, while the tumor in the remaining left kidney was increasing. Patient was again operated, with removal of the tumor in the left kidney and preservation of the remaining renal tissue. The histology proved a renal carcinoma. The patient was followed for 8 months by now, with a serum creatinine of 1,2 mg/dl and no signs of recurrence. It is to be discussed if the renal carcinoma and the IgG4-RD are connected.

(ID 115) Marfan syndrome and multiple aortic dissections: a step-by-step surgical approach with favorable outcome

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Objectives: Patients with Marfan syndrome are at high risk of recurrent aortic dissection and should be closely followed for aortic enlargement. Life expectancy in these patients is lower compared with that of general population and they usually require staged surgical approach for aortic replacement.

We present a case of Marfan syndrome with severe aortic complications requiring multiple surgical interventions for "step-by-step" aortic replacement and limb revascularization.

Methods: Male patient, 36 years, known with Marfan syndrome, operated 9 years before presentation for ascending aortic dissection (Bentall), with chronic dissection of the aortic arch and descending thoracic aorta. Family history of premature death by aortic dissection (mother at age 25). Clinical findings: asymptomatic patient, Marfan phenotype 198 cm/95 kg, HR=90bpm, BP=120/60 mmHg, no murmurs. Echocardiography: normofunctional aortic prosthesis, LVEF=60%, normal cardiac chambers, no pericarditis. Chest X-ray: increased aortic knob and descending aorta. CT-Angiography of aorta and branches: dissection and aneurysmal dilatation of the aortic arch and descending aorta.

Results: Surgical treatment consisted of a "step-by-step" approach: first, the repair of the descending aorta using a "reversed elephant trunk" procedure, with no complications and favourable clinical course. Five months later, the patient underwent prosthetic replacement of the aortic arch, with reimplanation of the brachiocephalic trunk, left carotid artery and exclusion of the left subclavicular artery. Bilateral subclavicular arteries occlusions (post aortic arch surgery) were later treated as a 3rd and 4th interventions by bilateral carotid to subclavicular artery bypasses, maintaing a normal vascular perfusion of the spinal cord to prevent paraplegia. Residual dissection of the abdominal aorta was then monitorized for further replacement of the remaining aorta to be performed in the future. The patient remained asymptomatic.

Conclusions: We present a case of Marfan syndrome with severe aortic complications (dissection and aneurysms), requiring a step-by-step surgical approach to replace the entire diseased aorta and revascularize residual ischemic areas as limbs. In these cases, complex vascular surgery is life-saving and the entire aorta is finally replaced by prosthetic tubes.

(ID 116) Surgical treatment in a case of interventricular septal rupture post myocardial infarction: the faster, the better?

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Objectives: Interventricular septal rupture (IVSR) remains the "Pandora's Box" in an era of interventional revascularization, with an incidence of 0.3% and mortality higher than 90%. Untreated, IVSR has an unpromising clinical and hemodynamic course (left to right shunt and progression to cardiogenic shock). The echocardiographic evaluation of patients with acute myocardial infarction (AMI), as well as the promptitude of surgical therapy, play a key role in improving short and long term mortality. Due to necrotic tissue and difficulties of closing the defect, surgical approach should be postponed for better healing as long as possible.

Methods: Male patient, 65 years, with history of ablation for recurrent atrial fibrillation, dyslipidemia, no history of cardiovascular disease, presenting with chest pain and dyspnea for the last 6 days. Clinical examination: Orthopnea, bilateral basal rales (Killip class II-III), tachycardia (120bpm), third heart sound, BP=120/70 mmHg, holosystolic murmur in precordial area. Elevated troponin and cardiac enzymes confirmed AMI. ECG: SR, ST segment elevation in the inferior leads. Echocardiography: infero-posterior septum akinesia, IVSR with significant left to right shunt, moderate mitral regurgitation, LVEF=65%, compensatory basal septal hypertrophy 17 mm. Coronary angiography: main left coronary artery, LAD and CxA with minimal lesions (<50%), severe stenosis of OM1, occlusion of the distal right coronary artery with no indication of revascularization.

Results: The patient developed frank pulmonary edema and, being deteriorated, was transferred to a specialized cardiothoracic surgery center, where urgent surgical intervention was performed (being hemodynamic compromised): closure of the septal defect and prosthetic replacement of the scarred ventricular wall area (Daggert method). Venous graft was placed to OM1. Immediate post-operative and 1 month post-surgery clinical course was favorable, moderate mitral regurgitation remaining. The patient remained in sinus rhythm even at 6 months post-surgery, despite mitral regurgitation and enlarged left atrium, with favorable outcome.

Conclusion: IVSR is a fearful mechanical complication post myocardial infarction, alongside mitral regurgitation and rupture of the left ventricle's free wall. Even if early surgery has very high rates of failure and mortality, sometimes urgent repair of the defect for patients with cardiogenic shock or refractory heart failure is the only life-saving option.

(ID 120) Influenza in Romania, 2016-2017

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Introduction: In Romania, the Ministry of Health provides free vaccination for high-risk groups (pregnant women, elderly over 65 years old, HIV infected persons, people with chronic diseases, institutionalized persons and health-care workers). The influenza vaccination campaign for high risk groups started in October 2016 and continued throughout the season. 499.650 people from high risk groups were vaccinated. The vaccine uptake was 2.5% for the general population, 8.2% for the elderly and 47.5% for health-care workers. Our aim is to describe the influenza season 2016-2017 in Romania

Methods: We reviewed available data regarding influenza-like illness (ILI) and severe acute respiratory infections (SARI) reported to the National Centre for Surveillance and Control of Communicable Diseases (NCSCCD) from week 40/2016 to week 20/2017. The specimens were examined for the presence of influenza viruses type A and type B using real-time RT-PCR. If an influenza virus is detected, a second rRT-PCR analysis is performed for determination of H1N1 pdm09 or H3N2 subtypes for influenza A viruses, or for lineage determination (Yamagata or Victoria lineages) for influenza B viruses.

Results: First influenza viruses were detected in week 43/2016, but constantly detection of the virus started with week 46/2016, earlier than in the previous seasons. The highest numbers of influenza positive specimens were detected in weeks 51/2016 - 5/2017. All characterized samples were similar to the vaccine strains. There were 161 SARI confirmed cases and 597 ILI confirmed cases. Majority of cases were confirmed with AH3N2 (453 cases/59.8%) and B (212/ 27.97%). There were 27 deaths, 81.5% (22) with AH3N2, 11.1% (3 cases) with untyped A and 1 case each of AH1N1 and type B (3.7%). Most of the deaths (20/74.1%) were among patients ≥65 years. Most confirmed cases were recorded in Bucharest, followed by Iasi and Olt. Most deaths were reported in Bucharest and Cluj.

Conclusions: The influenza season 2016-2017 was longer, characterised by dominance of influenza A (H3N2) in the first part of the season followed by dominant circulation of B viruses (Victoria lineage) in the second part. The vaccine coverage was very low.

(ID 125) Tetanus in Romania, 2009-2016

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Tetanus is a vaccine preventable disease, included in the national surveillance system as a prioritary.

The diftero-tetano-pertussis vaccination (DTPa) was first introduced in Romania in 1961 and starting 2009 we use the accelular pertussis (DTPa) vaccine. Since 2015, DTPa is administered at the ages of 2, 4, 11 months (Hep B-DTPa-IPV-Hib), at 6 years (DTPa-IPV), at 14 years (dT) and every 10 years (VTA or dT).

Our aim was to present the evolution of Tetanus in Romania between 2009 and 2016.

Method: We made a descriptive analysis based on the data from the Annual Reports of the National Centre for Surveillance and Control of Communicable Diseases (NCSCCD) and on the data from the specific literature. The cases of Tetanus are mandatory reported accordingly with the surveillance methodology issued by the NCSCCD.

Results: Between 2009 and 2016, 68 cases of Tetanus were confirmed with a peak in 2011 (20 cases). There were reported 43 deaths (case fatality rate 63.2%). The average incidence was 0.06%000, compared to the average incidence of 0.03%000 in the EU. The cases were more frequent in men (37/ 63%), in rural areas (55 / 79%), at the age group over 65 years (35/51.5%), followed by children between 0-14 years old (14 /20.6%). Most cases were unvaccinated (62/91. 2%). In 2015 and 2016, the vaccination coverage with 3 doses of DTP at the age of 12 months was low, 57.9% (2015), 68.1% (2016) and lowest in the rural areas (53.7% in 2015 and 66.5% in 2016).

Conclusions: In Romania, the incidence for Tetanus had a descendent trend, but above the European average and a high fatality rate. The vaccination coverage with 3 doses of DTP at the age of 12 months remains below the optimal target of 95%. Tetanus is a public health issue, with the possibility of prevention with specific vaccination, according to the National Vaccination Program and with a proper post-exposure prophylaxis of wounds with potential risk for tetanus.

(ID 126) *In vivo* vs. *in vitro* test in making the correct allergologic diagnosis

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Objectives: Allergic rhinoconjunctivitis entails the presence of specific symptoms due to the exposure to a certain aeroallergen. These manifestations can be explained through Ig E-mediated mast cell degranulation within the nasal and ocular tissue. In vivo or in vitro allergy testing associated with specific clinical manifestations are the key to a positive diagnosis as well as future treatment options.

Methods: We present a clinical case of a male patient who was known to have had in the past minor symptoms of rhinoconjuntivitis (mild nasal obstruction, rhinorrhea, recurrent sneezing). This time he came for an allergologic reevaluation after a severe episode with bronchospasm that needed emergency treatment. A few hours before the symptoms onset, the patient was in a car with opened windows carrying a cat in his arms during the ragweed (Ambrosia elatior) blooming season.

Results: The skin prick tests were positive for Dermatophagoides pteronyssinus and farinae as well as for Ambrosia elatior polen. Surprinsingly the in vitro testing that determine the specific Ig Es were negative for house dust mites. That led us to investigate further and found the presence of Ig G anti house dust mites.

Conclusion: The positive in vitro tests quantifies the free, circulating Ig-E antibodies whilst the skin prick testing identifies the presence of the Ig-E that are bound to the tissular mastocytes. Taking in consideration the specific allergologic test results and the presence of symptoms during the ragweed polen season, we were able to make a diagnosis. Our patient has moderate to severe allergic rhynoconjunctivitis to Ambrosia elatior and intermittent asthma. The role of the allergist is essential in establishing the correct final diagnosis and the therapeutic conduct that consists of prophylaxys and allergen specific immunotherapy.

(ID 127) Stent-graft endovascular treatment of posttraumatic carotid-cavernous fistula – case report

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Objectives: The carotid-cavernous fistula represents an abnormal communication developed between the internal/external carotid artery (ICA/ECA) and the cavernous sinus (CS). There are two main types: direct (intracavernous ICA and CS direct connection) and indirect (communication via branches of ICA or ECA). Another classification involves four subtypes: type A (direct connection between the intracavernous ICA and the CS), type B (dural shunts between intracavernous branches of the ICA and CS), type C (dural shunts between meningeal branches of the ECA and CS) and type D (B + C). Direct carotid-cavernous fistulae, which represent 70-90% of all carotid-cavernous fistulae, usually have high rates of arterial blood flow and most commonly are caused by a traumatic tear in the arterial wall. We report this case in order to highlight an alternative course and treatment of a type A direct carotid-cavernous fistula.

Method: A 47-year old male patient with medical history of subarachnoid haemorrhage, right temporal-occipital and nasal pyramid cominutive fractures due to a motorcycle accident-induced craniofacial traumatism (4 months prior to admission) was referred to our clinic for further investigation regarding a potential carotid-cavernous fistula. The latter had been taken into consideration after a cerebral computed tomography scan was taken at a previous clinic due to our patient having been presented with chemosis, exophtalmos and disturbance in the occulomotricity of the right eye.

Results: We performed a cervical-cerebral angio-MRI which showed a direct carotid-cavernous fistula type A between the right intracavernous ICA and the CS, with rapid venous drainage through an extremely dilated and tortuous ophthalmic vein into the right facial vein. As there were no contraindications, the Neurology-Radiology team established that the appropriate course would be endovascular. Therefore, angioplasty was done and a stent graft was placed into the intracavernous segment of the right ICA.

Conclusions: This case was chosen to be presented in order to highlight that endovascular stent-grafting is a safe and effective procedure in selected cases of carotid-cavernous fistulae and that appropriate management sustained by a multidisciplinary team may reduce the associated risks of morbidity and death.

(ID 128) Seasonal influenza in Europe between 2010-2017

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We aimed to describe the main characteristics of the seven postpandemic influenza seasons in Europe.

Material and methods: We analyzed the official data reported at Eu level (ECDC Annual Epidemiological reports, Influenza Season reports) from 2010 to 2017.

Results: The duration of seasons was different (from 16 weeks in 2010-2011 to 23 weeks in 2016-2017).

The earliest start of influenza season was in 2016-2017 (week 46), the latest on week 3 in 2011-2012. The influenza season ended earliest in week 13 (2010-2011), and latest in week 20 (2011-2012, 2013-2014, 2014-2015, 2015-2016). Every season, the dominating circulating virus type/lineage changes, as such: A(H1N1)pdm09 and B (Victoria) in 2010-2011, A(H3N2) in 2011-2012, co-circulation of A(H1N1) pdm09 and B(Yamagata) in 2012-2013, A(H1N1) pdm09 and A(H3N2) in 2013-2014, A(H3N2) in 2014-2015, co-circulation of A(H1N1)pdm09 and B(Victoria) in 2015-2016, A(H3N2) in 2016-2017.

The most affected age groups were as follows - children under 15 years old in 2010-2013 and 2014-2015, people over 40 years old in 2013-2014, over 65 years old in 2016-2017 and 40-64 years for A (H1N1) and 5-19 years for B (Victoria) in 2015-2016. The vaccine strains were similar with the circulating viruses in seasons: 2010-2011, 2012-2013, 2013-2014, 2015-2016, 2016-2017. In 2015-2016 circulating viruses were similar with the vaccine strain, but B(Victoria), which was co-circulating with A(H1N1) was contained only in quadrivalent vaccine.

In seasons 2011-2012 and 2014-2015, the circulating influenza viruses have suffer antigenic drift and were dissimilar to the vaccine strains.

Conclusions: The duration of the influenza seasons varied between 16-23 weeks. Each season have a dominating type: co-circulation of A(H1N1)pdm09 and B(Victoria) or B(Yamagata) was in 2010-2011, 2015-2016, respectively, 2012-2013; A(H3N2) has been circulating in every season, but it was dominant in seasons 2011-2012, 2014-2015, 2016-2017. The most affected age group was under 15 years old, followed by over 40 years old. It was a relatively good match between vaccine and circulating strains. The circulating viruses were: similar to the vaccine strains in five seasons; dissimilar in 2011-2012 and 2014-2015.

(ID 130) Presently-past: atypical presentation of Lichtheim's disease – case report

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Objectives: Vitamin B12 (cobalamin) is used in the nervous system for the synthesis of nucleic acids and myelin. With a prevalence 1.6-10% in Europe, cobalamin deficiency has become more frequent in the developed countries (due to certain diets, bariatric surgery), rather than in poverty-induced deficiency areas. Lichtheim's disease, commonly known as subacute combined degeneration of the spinal cord is one of the nervous system afflictions stemmed from the lack of B12. Its name derives from the nerve-fiber-demyelination in the dorsolateral columns of the the spinal cord. The following case was chosen to be presented in order to highlight an atypical, late-onset presentation of B12-deficiency.

Method: A 59-year-old female with medical history of arterial hypertension, ischaemic heart disease and osteoporosis, presented to our hospital with paresthesia in her lower and upper limbs that had started 6 months prior to her admission. It had been felt at first in the fingers of the lower, then of the upper limbs. By her admission, the paresthesia had extended proximally to her elbows and her knees. But for her symptoms and global hyperreflexia (rather left-sided), the clinical neurological examination (including neurocognitive tests) revealed no abnormalities.

Results: While the cardio-pulmonary, ophthalmic, endocrinological, gastro-intestinal examinations were normal apart from a gastro-esophageal reflux, the haemathological tests established the presence of megaloblastic anaemia and B12 deficiency. Cerebral and spinal cord MRI showed hyperintensity on T2-weighted images of the dorsolateral columns, suggestive for Lichtheim's disease. Nerve conduction studies were normal. Life-long cobalamin replacement therapy was introduced.

Conclusions: We report this case that is atypical in presentation to pinpoint Lichtheim's disease being an actual reality, rather than a remnant of the past.

(ID 133) Imaging diagnosis and follow-up of dilatative uropathies associated with unilateral Kidney malformations: what do we choose and why?

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Imaging diagnosis and follow-up of dilatative uropathies associated with unilateral kidney malformations: what do we choose and why?

Objectives: Illustration and review of the contribution of the most important radio-imaging methods in the diagnosis and follow-up for the patients with congenital malformations of the reno-urinary tract associated with obstruction.

Material and methods: A retrospective imaging study was performed on the hospitalized children in the compartment of pediatric nephrology from I.C. Fundeni in the last 5 years (January 1, 2013- December 31, 2017), diagnosed with aforementioned pathology. The radio-imaging methods used were ultrasound, intravenous urography, CT scan and MRI. Ultrasound evaluation was performed for all the patients as first imaging method as well as follow-up method.

Results: This retrospective study have included 74 cases (42 male and 32 female, aged between 3 month and 16 years) with congenital unilateral HUN and we have selected only cases with congenital associated ipsi or contralateral anomalies. The study revealed several complex lesions with poor functional prognosis given by associated anomalies. From this group, we have chosen three cases with unilateral renal agenesis (one case with contralateral obstructive retrocaval ureter, the second case with small degree ureterovesical junction obstruction and ipsilateral seminal vesicle hypertrophy and another case which junctional ureteropelvic syndrome), one case with extreme renal hypoplasia and UHN secondary to ipsilateral ureterocele and the last case of complete pyelo-ureteral duplication with ureterovesical junction obstruction involving the superior collecting system and obstructive ureterocele on the inferior collecting system.

Conclusions: The pediatric patients management (conservative or surgery) will be established depending on etiology, obstruction degree, additional pathology and clinical features. The imaging techniques have been chosen according to each case particularities, the final purpose being complete diagnosis with minimal X-rays exposure.

(ID 135) A clinical case with unexpected medullary thyroid carcinoma

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Objectives: Medullary thyroid carcinoma (CMT) is a rare neuroendocrine tumor derived from parafolicular neuroendocrine C cells. The etiology can be sporadic but also genetic, involving multiple endocrine neoplasia type 2 (MEN2) A or B and familial medullary thyroid carcinoma. The pentagastrin test and the calcium stimulation test are used to differentiate causes of elevated basal calcitonin serum levels, and depending on the response, the degree of surgical excision is decided.

Methods: We report the case of a male patient of 58 years old who presented at National Institute C.I.Parhon for his periodic monitoring of multinodular thyroid goiter. Personal medical history included medically controlled type 2 diabetes mellitus diagnosed 5 years ago, hypertension grade II in treatment, dyslipidemia and thyroid goiter.

Results: Hormonal evaluation revealed normal thyroid assessment, elevated basal calcitonin levels of 38 pg/ml (N<14.3pg/ml) and normal values of carcinoembrionar antigen. Furthermore, thyroid ultrasound indicates the presence of numerous bilateral thyroid nodules, the largest with a diameter of 1.2 cm and without laterocervical adenopathies. After exclusion of pathologies contraindicating the calcium stimulation test and after eliminating other causes of elevation of basal calcitonin levels, the calcitonin stimulation test was performed, calcitonin exceeding the value of 840 pg/ml. In addition, screening for MEN2 associated conditions was negative, with normal parathormone, metanephrines and normetanephrines levels. The patient was transferred to the surgery ward, where he underwent a total thyroidectomy with total neck lymphadenectomy. Histopathological and immunohistochemical examination diagnose bilateral MTC. The patient evolution was favorable, with normalization of the calcitonin levels. Screening of descendants was recommended, taking into account the bilateral lesion.

Conclusions: We present the case of a patient with elevated basal calcitonin levels in the context of multinodular thyroid goiter, whose positive response to the calcium stimulation test led to the indication of total dissection of the neck.

(ID 137) Importance of professional treatment such as complex physical therapy in patients with breast cancer mastectomy on related upper limb lymphedema reduction

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Introduction: Breast cancer is the most frequent malignancy in women, with an incidence growing each year. Approximately a quarter of breast cancer patients develop upper limb lymphedema following breast cancer mastectomy. Lymphedema has been shown to negatively affect quality of life. Apart from the functional impairment that starts at the arm level, it has been demonstrated that the lymphedema will negatively affect the quality of life. In particular, the aesthetic factor plays an important role in the loss of self-esteem. The selection and implementation of the right treatment remains a problem, as no clear therapeutic protocols not exists. Some authors recommend Complex Physical Therapy, which includes skin hygiene, manual lymph drainage, bandaging, exercises and supportive garments.

Objective: The main objective is to underline the importance of complex professional treatment provided by specialized therapist on volume-reducing effect. Another objective is to demonstrate how a complex physical therapy can be implemented as a standard routine for all the patients undergoing breast cancer mastectomy, whenever the edema has been installed.

Method: Control group: exercises and prevention measures, patient's manual lymph drainage performed back home and a multilayer bandage applied daily, but not having a tailor made sleeve for lymphedema. Experimental group: manual lymph drainage has been applied by a trained physical therapist and sleeve for lymphedema has been used all day. The results were evaluated after first month, three, and 6 months respectively.

Results: The arm circumference reduction in the affected arm was greater for patients that undergone complex physical therapy and did wore a tailor made sleeve. Arm functionality was better for the experimental group, as well. Quality of life questionnaire was used in order to assess the efficacy of the treatment, measuring the satisfaction with one's corporal image.

Conclusions: Evidence suggests that treatment involving a combination of several therapies, some of them given by specialized therapist are better than do it yourself home given therapy. The results can be seen on both arm functionality and quality of life. There is a need for performing well-designed, randomized trials of the physical treatments used for the breast cancer patients. Complex physical therapy which includes skin hygiene, manual specialized lymph drainage, bandaging, exercises and supportive garments has to be recommended to all patients undergoing mastectomy.

(ID 144) Marfan syndrome – one case is enough to raise awareness and make a difference in prognosis

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Objective: Marfan syndrome is a rare autosomal dominant disorder of the connective tissue, classically diagnosed in adolescence, whose cardinal features affect the cardiovascular system, eyes and skeleton. It has no cure, but early diagnosis, regular monitoring and a preventive lifestyle regimen ensure a good prognosis. However, the diagnosis may be difficult as it is essentially a clinical one, relying on family history, meticulous physical examination.

Method: The authors present the case of a neglected adolescent with typical Marfan's in order to emphasize not only the importance of early recognition, but also the serious consequences of a passive conduct in regard to this disorder.

Results: The 16 year-old patient was admitted in the Department of Pediatrics, Hospital Grigore Alexandrescu with an acute respiratory tract infection.

His medical history revealed that a clinical suspicion of Marfan Syndrome was raised at the age of 9, but no consequent work-up followed. The patient was an orphan, lived in a home provided by social services. Medical care and any form of treatment were scares. On general examination the patient was thin and of tall stature (185.5 cm, 49 kg). He had dolichostenomelia with arachnodactyly and flat feet with prominent finger joints. Head and neck examination revealed dolichocephaly, enophthalmos, micrognathia, highly-arched palate and malocclusion. Ligamentous laxity was impressive. Serious chest wall deformities completed the clinical picture (thoracic scoliosis, pectus excavatum, Haller diameter-35 mm). The echocardiography showed mitral valve prolapse with mitral regurgitation and dilatation of the ascending aorta (40 mm) posing a moderate cardio-vascular risk. The severe chest wall deformity resulted in a restrictive respiratory dysfunction with reduction in FVC on pulmonary function tests. The eye exam revealed myopic astigmatism.

The patient was enrolled in a kinetoterapy and respiratory physiotherapy programme, put on ACE inhibitor, a schedule for regular cardio-vascular check-ups was set and diligences were made to improve his social support.

Conclusions: It is very important to recognize Marfan syndrome early and look for known associated features with targeted investigations. Preventive actions should be undertaken in order to avoid life-threatening consequences of this disorder.

(ID 145) Setting up the medical and social centers in Tulcea County

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Increasing Access to Health and Social Services - an Integrated Community Health and Social Service" in Tulcea County project was developed through a Framework Agreement between the Swiss Federal Council and the Government of Romania. The Romanian-Swiss Cooperation Program implemented the project under: "Reducing Economic and Social Inequalities within the European Union". The Romanian Association of Public Health and Management (RAPHM) provided specialized consultancy in three communes and their affiliated villages in Tulcea county: Beştepe, Luncavi□a and Maliuc.

The aim of the pilot project was to monitor the setup of the three medical and social centers in rural places with the objectives: to evaluate the management of the project, to evaluate the acquisitions and the facility of the adequate access to medical and social care services.

Methods: These communes have in common: the difficult access to medico-social services (e.g. access on the Danube for some villages in these communes), a large number of socially uninsured people and most elderly suffering from chronic diseases. The project was carried out from January 2016 to Dec 2017, with an extension until June 2018. Periodical monitoring was carried out by RAPHM: visits and a mail / telephone contact kept with the Local Public Administration) and with the project manager checked up day-to-day operational issues.

Results: The project team has carried out its activity according to job descriptions / terms of reference, they have trained community nurses and domiciliary care workers who assisted 80 people in need; the acquisitions for the medical and social centers were done.

Discussions: The monitoring activity showed that implementation of the three projects can offer a service delivery and organization model for similarly sized communities. The proven integration of medical and social services in these communities gives the evidence-based need and support to establish sustainable links between ministries: Health, Labour, Education and Regional Development.

Conclusions: the proposed objectives have been achieved; at the local level some delays in the activities are due to unexpected issues.

(ID 146) Tick-borne encephalitis in Romania between 2008 and 2016 – hiding in plain sight?

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Introduction: Tick-borne encephalitis (TBE) is a serious infectious disease caused by viruses of the Flaviviridae family, lacking specific treatment. The European subtype of TBE virus (TBEV) occurs in rural or forest areas. Infection takes place following tick bites. In Romania, the tick Ixodes ricinus represents the predominant vector. The insect is found throughout the country. Individuals in endemic TBE areas have an elevated infection risk if coming within reach of the ticks, through outdoor activities. Vaccination with inactivated virus is indicated from 1 year of age in endemic areas, and to tourists traveling in these zones as well. We aim to describe TBE evolution in Romania in the 2008-2016 timeframe.

Materials and methods: This review is based on annual epidemiological surveillance reports from the European Center for Disease Control (ECDC) and the Romanian National Center for Transmissible Disease Surveillance and Control (CNSCBT). In Romania, TBE is mandatory to report; a specific surveillance system is in place.

Results: Between 2008 and 2016, 22 confirmed TBE cases were recorded in Romania. The counties with the highest TBE incidence were Bihor, Bistrita-Nasaud, Salaj, Mures, Cluj. 78.3% of patients were male. 87% of patients lived in rural areas. Increased risk professions included farming, foresting, shepherding. Surveillance is overseen by the Cluj Regional Public Health Center. In the aforementioned counties, 20-40% of ticks were infected with TBEV and sheep, regarded as sentinels for TBE risk, had a 15.02% prevalence of anti-TBEV neutralizing immunoglobulins. WHO defines a threshold rate of 10/100,000 cases for European countries, thus classified as either highly or moderately-low endemic. In 2015, rates as high as 16.4/100,000 were documented in the Baltic states, while the European Union averaged 0.4/100,000 and Romania reported no cases.

Conclusion: In Romania, TBE is less prevalent than in the EU and 5 north-western counties are considered endemic. High TBEV prevalence indicators in ticks and sheep warrant extending the surveillance system from local to national level. Vaccination against TBEV is the most effective means of disease prevention. Other measures include avoiding tick bites and avoiding consumption of unpasteurized dairy in risk areas.

(ID 147) Cutaneous keratinocyte carcinoma- challenges of diagnosis, problems of treatment

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Objectives: Skin cancers are the most frequent cancers of the Caucasian population, in advanced stages they are associated with high morbidity, medical costs, and in certain forms, with high mortality. Prompt diagnosis and treatment is crucial to improve prognosis, and the correct diagnostic pathway should be well known to the clinician.

Methods: We present the case of a 72-year-old patient who presented for a growing pink nodule on the right cheek. The lesion had started in 2003, with an asymptomatic erythematous nodule which grew slowly, without response to usual topical treatments, and progressed to non-healing ulcerations. It was incompletely electrocauterized in outpatient setting, without pathological diagnosis, and then it relapsed with nodular growth. On presentation in our clinic, the skin inspection revealed a fibrous erythematous nodule, with 0.8 cm diameter, localized on the right cheek, on a partly scarred, telangiectatic, ill-defined background. The clinical suspicion went towards a relapsing basal cell carcinoma and surgical wide excision of the nodule and the entire surrounding, clinically altered tissue was performed under local anesthesia and primary wound closing.

Results: The histopathological result revealed changes compatible with moderately differentiated squamous cell carcinoma, invasive to the dermis, 2.7 mm maximal thickness, with complete resection. However, due to previous cauterization, the real extent of the tumor, and hence its true prognosis could not be correctly estimated.

Conclusions: The presented case illustrates the difficult course of many skin cancer patients, with delayed presentation to physician, inappropriate blind, incomplete destructive treatments, relapses on altered skin background, leading to extensive, defacing surgery and uncertain prognosis. Physicians' awareness of this type of lesion, and knowledge of the guidelines of good medical practice are essential to approach correctly and improve prognosis of these frequent tumors.

(ID 148) Studies on the formulation, preparation and control of chewable tablets for pediatric use with acetaminophen

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Objectives: Pain is exacerbated in children with a much lower tolerance threshold. Starting from this undesirable aspect, the objective of this experimental work was to obtain chewable tablets for pediatric use with acetaminophen (120mg/cpr), an alternative to the presence on the market of syrups, products with low stability, in order to improve the range of pharmaceutical forms with this drug, with significant analgesic-antipyretic action (solid forms present on the market: granules, effervescent tablets).

Materials and methods: For the preparation of chewable tablets, was used a mixture of: directly compressible excipients (Pearlitol®, Avicel®102, Flowlac®100/Supertab®/Compact lac®), lubricant (magnesium stearate), glidant (Colloidal Silica-Aerosil®, flavouring (menthol) and sweetener (sodium saccharin) to made three formulations for chewable tablets in which we varied only one of the diluents, namely lactose. For preparation of chewable tablets the direct compression procedure was used, with the Korsch EK-O compressor. Prior to compression, the pharmacological properties of the compound powders were determined: the homogeneity, the uniformity, the fineness and the determination of the flow of the powder mixture (the compressibility index and the Hausner ratio).

To characterize the tablets prepared a series of tests indicated by the literature and the rules in force were carried out: organoleptic characteristics, mass uniformity, hardness, friability.

Results: The chewable tablets obtained comply with the organoleptic quality requirements of FR X. It has been observed that the hardness of the tablets is less than 12 kp, so the tablets are appropriate from this point of view as well as the mode of administration. The acetaminophen (paracetamol) chewable tablets comply with the official disintegration rules, with interval between 3.43 and 6.1 minutes. It can be seen that friability of the chewable tablets for the three formulations is less than 1%, so the tablets conform to the USP and FR X standards. It is also observed that the Compact lac® formula shows the lowest friability value and the formula Flowlac®100 has the highest friability in the three formulas.

Conclusions: As a starting point, to obtain an optimal formula for chewable tablets is that formula which has in composition the lactose type Flowlac®100 as a diluent.

(ID 157) Comprehensive next generation sequencing genes panel in epilepsy

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Background: Epilepsy is a neurological disorder characterized by abnormal electrical activity in the brain with a significant portion of cases having some degree of genetic contribution including multifactorial, polygenic, chromosomal, copy number variants, and single gene disorders. Clinical features vary by age of onset, type, and frequency. Epilepsy may be part of a syndrome, which typically involve genes associated with cortical development, mitochondrial function, and metabolism. The genetic heterogeneity and the phenotypic overlap in severe epilepsies beginning in infancy and early childhood make multigene panel analysis a useful diagnostic tool. The aim of this study was to perform a comprehensive genetic analysis using next-generation sequencing (NGS) technology to analyze 176 genes previously associated with epilepsy in 91 patients with epilepsy and developmental delay.

Method: All patients had been previously studied in order to rule out a structural or metabolic etiology. The current design of the Next Generation Sequencing panel covers the coding region for all 176 genes and the flanking intronic sequences. This method allows for analysis of greater than 98% of the targeted sequence for the detection of nucleotide substitutions and small deletions and duplications. Large deletions and duplications will not be detected by this panel.

Results: A total of 19 (20,87%) disease-causing variants and presumed disease-causing variants were detected, including KCNQ2 (n = 3), CDKL5 (n = 2), SCN1A (n = 3), ACADS(n = 1), PRRT2(n = 3), SLC2A1 (n = 1), ARX (n = 1), KCNA2 (n = 1), (n = 1), GRIN2B(n = 1), CHD2 (n = 1), and POLG (n = 2).

Conclusions: NGS panels are now used widely in the clinical setting to identify genetic causes of epilepsy, replacing the traditional gene-by-gene approach. Molecular testing is useful to confirm the diagnosis and to identify the disease causing mutations within a family to allow for carrier testing and prenatal diagnosis.

(ID 159) Idiopathic thrombocytopenic purpura in a child with Kabuky syndrome

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Kabuki syndrome is a rare genetic disease, characterized by anomalies in multiple organ systems, mental retardation and distinctive facial features: elongated palpebral fissures with eversion of the lateral third of the lower eyelid; arched and broad eyebrows; short columella with depressed nasal tip; large, prominent, or cupped ears. Genetic transmission of KS is autosomal dominant in more than 50% of patients. While many of the anomalies are congenital malformations, autoimmune abnormalities (idiopathic thrombocytopenic purpura (ITP), hemolytic anemia, thyroiditis, and vitiligo) may not appear until later in childhood. The diagnosis consist of specific genetic tests (KDM6A, KMT2D)

Male patient, 12 years old, diagnosed with Kabuky syndrome, presents petechiae on the chest, arms and legs. Physical examination findings: dysmorphic features, ecchymoses on the left leg, gingival bleeding, widespread petechiae, hepatosplenomegaly, systolic heart murmur grade II/VI. The complete blood cell count, shows isolated thrombocytopenia 17000/mmc. The peripheral blood smear shows the morphology of platelets is typically normal, with varying numbers of large platelets, red and white blood cell morphology is normal. Based on the clinical and laboratory investigations, we exclude vasculitis and coagulation disorders and suspect the diagnosis of Idiopathic thrombocytopenic purpura (ITP). We begin the treatment with intravenous gamma-globulin (0.8-1.0 g/kg), and initially the thrombocytes number raised from 17000/mmc to 53000/mmc, then decreased to 12000/mmc. The bone marrow aspiration indicates a normal-to-increased number of megakaryocytes in the absence of other significant abnormalities, which confirm the diagnosis of Idiopathic thrombocytopenic purpura (ITP). We continue the treatment (according to the American Society of Hematology) with intravenous Metilprednisolon (4 mg/kgc) for four days, afterwards with Prednisone in progressively decreasing doses for two weeks The response to treatment was slow favorable, at the end of the treatment, the number of thrombocytes was normal. Since the autoimmune disease does not occur until later childhood, and many of Kabuki Syndrome reports regard the paediatric age, the real frequency of autoimmune conditions in this syndrome might be underestimated. There is a high risk of developing chronic idiopathic thrombocytopenic purpura in children with Kabuki syndrome, so the platelet count should be periodically monitored.

(ID 160) Diagnostic problems with a case of primary tuberculosis in a young patient

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Tuberculosis (TB) is an infectious disease usually caused by the bacterium Mycobacterium tuberculosis (MTB). Tuberculosis generally affects the lungs, but can also affect other parts of the body such as central nervous system, lymphatic system, genitourinary system, circulatory system, especially in an immunocompromised patient. Tuberculosis is highly endemic and a major public health problem in Romania, even if this disease is considered eradicated in most European countries, the reports show large number of TB cases in children in Romania (600 cases/year). Female patient, 1 year 2 month with a family history of HIV infection and Pulmonary Tuberculosis presented with fever, abdominal pain and emesis of 1 month duration. The suspected diagnosis was acute appendicitis, which initiate urgent surgery. During surgery, samples of purulent exudate were taken, for which Ziehl Neelsen staining and culture were made. The result was positive for Mycobacterium tuberculosis. The Chest X-ray shows no specific evidence of tuberculosis infection. We begin the treatment with tuberculostatic drugs, afterwards the patient delops atonic seizure on the right half of the body, typical absence (the eyes look straight ahead), dystonic posture. The head CT scan and the lumbal puncture confirm the diagnosis of tuberculous meningoencephalitis. The chest and abdominal CT scan show cavitary pulmonary image in the left basal pyramid and two localized intrapelvic collection. After the interdisciplinary consult it is decided to initiate the treatment for multi-drug-resistant TB with a slow favorable evolution. The diagnosis is laborious because of the difficulty of obtaining the specimen required for bacteriological examination, low specificity of the radiological examination and the limits of the tuberculin skin test. Long-term treatment, pediatric formulas, few pharmacokinetic data are some of the elements that interfere with treatment compliance. CT-scan, HR-CT, IRM, QuantiFERON-Test, the use of liquid medium for culture and molecular methods, the presence of some pediatric drug combinations easier to adapt to the child's body weight are some of the elements that can help to the diagnosis and treatment of childhood tuberculosis.

(ID 165) A rare association of autoimmune disorders and transplantation pathology

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Introduction and objectives: Sjogren's syndrome is chronic autoimmune disease characterized by diminished function of salivary and lacrimal glands. Cryoglobulinemia is frequently associated with HCV infection and is a cause of purpuric rash and glomerulonephritis. Although rare, Sjogren's syndrome is the most common cause of non-HCV cryoglobulinemia.

Materials and methods: We report the case of a 28-year-old patient admitted in the clinic to investigate a erythematous maculo-papular rash on the lower limbs. We retain the following from the patient's history: kidney transplant (right kidney 2008) following an episode of rapidly progressive glomerulonephritis, ANCA-positive vasculitis (pANCA (+), cANCA (-)) Sjogren's syndrome (2013) and SLE.

It is worth mentioning that the patient's father has undergone kidney transplantation after an episode of rapidly progressive glomerulonephritis but without clear etiology.

The clinical examination reveals cushingoid facies, palpable purpuric lesions on the lower limbs, linear right flank post-operative scar, hirsutism, hyperemic conjunctiva, muscular hypotrophy.

Biologically, we notice mild thrombocytopenia, hypocomplementemia, minimal biological inflammatory syndrome, 24h proteinuria in normal limits and negative direct Coombs' test. Stansfeld-Webber reaction reveals hematuria with isomorphic erythrocytes. At the time of discharge, serology was pending, so the previous diagnoses and the cause of kidney damage were reconsidered. Although the patient was diagnosed with SLE, she had persistently negative serology (antiSm, antiADNdc (-)), but Sjogren's specific antibodies were constantly present. It is known that Sjogren's may cause interstitial kidney damage. The presence of pANCA antibodies and rash, also raises the suspicion of vasculitis.

Results: The subsequent results show the presence of cryoglobulins, antiRo, antiLa, pANCA and the absence of SLE-specific autoantibodies. Soon after, the patients started plasma exchange sessions with positive results.

Conclusion: The particularity of the case consists of the severe renal pathology and post-transplantation status of the patient. Association of primary Sjogren's syndrome with cryoglobulinemia, in the absence of HCV infection, is rare and is associated with cutaneous leukocytoclastic vasculitis, as well as glomerulonephritis.

(ID 166) The importance of properly investigating pregnancies in order to early detect HBV infection and prevent mother-to-child transmission

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Objectives: The mother-to-child HBV transmission remains an important public health problem, in spite of the use of proper immunoprophylaxy methods. In order to prevent transmission one of the best ways is to properly investigate the pregnancy. We present some of the factors which may influence the detection of HBV infection in pregnant women.

Methods: We retrospectively studied the epidemiologic, clinical, and laboratory characteristics of the HBV infected pregnant women, who were admitted in a maternity hospital from Bucharest. The statistical analysis was performed using EpiInfo (version 7.1.5.2).

Results: We evaluated 66 pregnant women with HBV infection, with the median age of 28 years old. Most of the patients were married (66.67%) and lived in the urban area (63.64%). For 60.61% of them the childbirth was through a caesarean section. The majority (87.88%) of the women were diagnosed before childbirth. The logistic regression regarding the marital status, the living area and diagnosis of HBV infection prior to pregnancy showed an odds ratio of 0.72 (95%CI: 0.12-4.14) and 1.69 (95%CI: 0.29-9.58).

Conclusions: Although progress has been made in providing healthcare, we still have cases of HBV infection detected during pregnancy. One of the most important way to prevent mother-to-child transmission is represented by the proper pregnancy management; prior epidemiological, clinical and laboratory data for each pregnant women and, of course, by increasing the population's knowledge.

(ID 167) Orthopedic rehabilitation after lower limb surgery using land and aquatic therapy

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Introduction/Objectives: In Orthopedic patients, especially for the cases with pathology of the lower limb joints, the major challenge is the progressive weight-bearing on the affected side after surgery, with learning of proper transfers, standing position and gait training. Inclusion of these patients in a Rehabilitation programme could be very useful in reaching these major objectives: decreasing the immobilization period with its complications, sooner orthostatic position, physiologically pattern for gait training– results described not only in the medical literature, but also by the positive feedback of our patients.

Methods: We conducted a study on 50 patients who suffered orthopedic surgery for different pathologies of the lower limbs in the last year, with metallic osteosinthesis implants and knee or hip arthroplasty.

The patients daily programme included preparation of the soft tissues in the hot mud bath, then classic kinesiotherapy (individualized programme for muscle and joint, land gait, learning of using medical devices like crutches/stick) and the aquatic therapy - medical gymnastic in the big pool, which offers the benefits of hydrotherapy (decreasing the weight-bearing on the affected limb, resistance training, coordination and proprioceptive exercises in water), but also the benefits of the lake Techirghiol water (physico-chemical properties of the salty water and sapropelic mud).

Results: The patients were scored on 5 international used scales for objective measurements at the admission and the end of the Rehabilitation period

Range of motion for lower limb joints – for testing the active and passive angles of motion

Force of the major muscle groups using the international 0-5 points scale

Visual analogue scale for pain measurement

Functional Indepedence measurement for disability index

Quality of life score

The statistics show improvement in all the scores regarding decreasing of pain, increasing of the functional angles of joint and muscular force on the affected limb, better gait possibility and functional independence, with global better quality of life.

Conclusions: The Rehabilitation program based on medical gymnastic on land and water using the natural factors in the therapy of lower limb orthopedic surgeries helps the patients in better and more rapid recovery and socio-professional reintegration.

(ID 168) Antibiotic knowledge of medical nurse students from first to last faculty year

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Objectives: In spite of medical progresses, the bacterial infections remain an important public health problem, especially because of the antibiotic resistance. Among the causing factors of antibiotic resistance we could mention the antibiotics misuse which could be a consequence of the lack of information. In the general population informing process, the medical nurses could play an important role. The aim of this study was to evaluate the medical nurse students' knowledge on antibiotic use.

Methods: We comparatively investigated the knowledge of medical nurse students from all the studying years on antibiotics misuse by applying a questionnaire composed of 33 questions. The data were analysed using EpiInfo (version 7.1.5.2).

Results: We applied the questionnaire on 300 medical nurse students. Their median age was 21 years old and 18% of them was also working, the majority of this group being employed in the medical system. Almost half of the students from the first year thought that antibiotics are efficient for bacteria, while the rest considered that they may be used also for parasites and viruses. Some of the students (36.67%) from the last year think that antibiotics are useful also for parasites and viruses. 68.57% of the first year students have taken antibiotics without medical recommendation in the last period compared with 43.33% of the last year students; both groups mostly for fever 49.28% compared with 60.71%.

Conclusions: Regarding the results of this study we could say that the knowledge regarding antibiotics of the medical nurse students improves during the faculty years, but there is still place for perfecting their panel of information and encourages them to disseminate the correct data regarding the use of antibiotics.

(ID 178) Unusual cause of chronic back pain

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Introduction & Objectives: Retroperitoneal fibrosis is a rare inflammatory condition characterized by the development of extensive fibrosis throughout the retroperitoneum. The condition is usually idiopathic in origin, it may also be secondary to other causes and be associated with IgG4 disease.

Material & Methods: We present a case of 47 year old patient, admitted to the Internal Medicine and Rheumatology Department of Sf. Maria Clinical Hospital, for clinical, biological and therapeutic evaluation, complaining bilateral coxalgia worsened by physical activity. The patient presented for the first time in 2011 to another hospital for back pain referred to lower abdomen and increased inflammation markers. The MRI scan detected a retroperitoneal mass surrounding the aorta, the VCI and the ureters –suggesting lymphoma. Subsequently, the patient developed acute renal failure and bilateral internal ureteral drainage was performed with internal ureteral stent (double-J stent). A guided biopsy of the mass was performed, but the results were inconclusive – low grade sarcomas vs. reactive proliferative process. Because the evolution was unfavorable, ureterolysis and peritoneal implantation of the ureters was performed. A second biopsy confirmed the diagnosis of retroperitoneal fibrosis. The patient started treatment with tamoxifen and high-dose prednisolone (80 mg/d tapered after 1 month and discontinued after one year). Because the patient developed popliteal vein thrombosis after 6 months of therapy, the treatment with tamoxifen was stopped. Furthermore, there were other periods of exacerbation of the disease for which the patient received high doses of CS for several months which led to the patient developing bilateral aseptic necrosis of the femoral head. In February 2018 the patient was admitted to Hospital Sf. Maria. One month prior to admission the patient started treatment with Prednisone 60 mg/d. The patient's laboratory test results showed normal serum immunoglobulin G4 (IgG4), but unfortunately immunohistochemistry for IgG4 wasn't performed. The decision was to introduce the immunosuppressive treatment with Mycophenolate Mofetil and to taper the dose of corticosteroids.

Results: The evolution under treatment was favorable, at 2 months follow up the patient's blood test results are stable and the ultrasound scan shows stable renal function.

Conclusions: The diagnosis and treatment have to be swift in order to prevent complications, among which the most frequent and most severe is ureteral obstruction. CT scanning or MRI is essential for evaluating the extent of the disease. IgG4 disease may be considered in patients with retroperitoneal fibrosis and periaortic lesions. The response to corticosteroids and immunosuppressive therapy is favorable.

(ID 179) Psoriasis and cardiovascular disease – a prevalence study

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Objectives: Psoriasis is a systemic inflammatory disorder linked with multiple comorbidities. The objective of this study was to determine the prevalence of cardiovascular disease in a population of psoriatic patients from Romania.

Method: We conducted a single-centre study involving a number of 144 patients with psoriasis. Patient's data about medical history and comorbidities as obesity, hypertension, type 2 diabetes, dyslipidaemia and metabolic syndrome were collected. Weight, height, waist circumference and blood pressure were measured for each patient during physical examination. In addition, the results of their most recent usual laboratory analysis were collected. Patients completed the DLQI (Dermatology Life Quality Index) and Psoriasis Activity and Severity Index (PASI) score was also calculated by dermatologist at the time of enrolment.

Results: We enrolled in the study 144 patients diagnosed with psoriasis. The mean age was 51.75 (± 14.3) years and the participants were predominantly overweight or obese with an average BMI of 29.8 kg/m^2 (± 5.6). The duration of psoriasis was 8 years (IQR 3 – 18 years). The overall prevalence of cardiovascular disease was 16.3%. The prevalence of heart attack was 14.1% while the stroke was a major cardiovascular event in two patients (2.0%).

Conclusion: Cardiovascular disease was frequent in patients with psoriasis. In consequence, physicians treating patients with psoriasis should remain mindful about cardiovascular disease in this population.

(ID 180) Impact of left heart disease on the duration of noninvasive ventilation in severe COPD exacerbation

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Introduction and Objective: The effects of left heart disease on the outcome and duration of noninvasive ventilation (NIV) in a COPD exacerbation has not been studied in published trials. Therefore, we studied the impact of left heart dysfunction on the outcome and the duration of NIV.

Methods: A prospective cohort study was undertaken in a respiratory intensive care unit between 2016 and 2017. 34 patients with severe COPD exacerbation and acute respiratory failure (respiratory acidosis) noninvasively ventilated with BPAP–VAPS were included. Echocardiographic data, duration (hours) of NIV, BMI, respiratory function, arterial pH and PaCO2 at admission, at 1-2 hours and 4-6 hours after admission were recorded. Left heart dysfunction (LHD) was defined as: reduced left ventricle ejection fraction and/or left ventricular hypertrophy and/or left atrium enlargement and/or mitral regurgitation.

Duration of NIV and mortality were the main outcomes.

Results: Mortality and intubation rate were 11%. Mean age was 68 years (SD =6.5). Mean hours of NIV within the first 24, 48 and 72 hours (NIV-72h) were: 14.5 (SD = 5.4), 24.6 (SD = 10) and 32 (SD = 13.8) respectively. A positive correlation between LHD and NIV-72h was found ($p<0.05$). The presence of LHD statistically significantly predicted NIV-72h, $p <0.05$.

Conclusion: We found that patients with LHD required more hours of NIV within the first 72 hours. Presence of LHD did not influence mortality or the total hours of NIV.

(ID 186) Severe orthostatic hypotension due to multietiologic major neurocognitive impairment (Lewy body disease and cerebral small vessels disease)

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Objectives: Lewy body disease (LBD) is a neurodegenerative disorder in which Lewy bodies (abnormal deposits of alpha-synuclein) build up in different areas of the brain. Its manifestations include dementia that precedes movement disorder, particularly with visual hallucinations and episodes of cognitive functions, alertness and attention fluctuations. LBD also affects autonomic body functions (e.g. blood pressure control). Autopsy studies suggest that DLB accounts for 10-20% of dementias. We report this case to highlight the troublesome diagnostic pathway of LBD.

Method: A 71-year-old with medical history of cerebral small vessels disease (CSVD), depressive disorder, bilateral carotid atherosclerosis, biological aortic valve prosthesis and arterial hypertension presented to our clinic for evaluation of what were later pinpointed as episodes of orthostatic hypotension (OHT). The patient complained of 2-year-old onset multiple episodes of syncope that manifested during strenuous activities and were preceded by dizziness. His wife described 2-3-month-old changes in the patient's attitude towards her, memory loss, excitation followed by sleepiness during the day, nightmares during the night sleep and symptoms indicating REM sleep behavior disorder, visual hallucinations, social avoidance and persecutory ideation (e.g. the very ringtone of his phone causing an intense state of paranoid arousal). During his admission he experienced brief periods of confusion and visual-spatial disorientation, one of them culminating with him eating the cookies of another patient and laying in that patient's bed.

Results: At his admission in our clinic, the patient was conscious, complying and normal oriented in time and space. He presented hypomimia, slight rigidity in the upper limbs and small-step, wide-based gait. During hospitalization the patient presented severe OHT (from 220/100 mmHg to 80/60 mmHg in orthostatism). The Mini-Mental-State-Examination score kept changing whilst being associated with the same social disturbances pointed out by the patient's wife. The polysomnography pointed out frontal-intermittent-rhythmic-delta-activity (FIRDA). Based on the current guidelines, our patient was diagnosed with major neurocognitive impairment of mixed etiology (LBD and CSVD).

Conclusions: As frequent type of dementia as it is, LBD often goes un/mis/diagnosed because of its polymorphism. As-exhaustive-as-available insight into the patient's history and course of disease and tests should overcome lack of definite histopathologic diagnosis.

(ID 188) Serum creatinine is correlated with biological parameters and hot ischemia time in kidney transplant recipients

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Introduction and objectives: Creatinine is practically a metabolite of creatine phosphate, which is a compound find in muscle that acts as a source of energy. This molecule is produced at a constant rate in the body and can vary depending on muscle mass. The main route of creatinine excretion is trough kidneys. Creatinine is a useful indicator of renal health because it is excreted in the urine as an unchanged product of muscle metabolism. Creatinine is the most used marker in estimating glomerular filtration rate in patients with chronic kidney disease, even in those with kidney transplant. The aim of our study was to evaluate the correlation between serum creatinine after kidney transplant with biological parameters and organ preservation times.

Material and methods: We performed a prospective study observational study on 44 consecutive kidney transplant patients from Fundeni Clinical Institute, Department of Uronephrology and Renal Transplantation. Patients were followed for 3 months after transplantation. The function of graft kidney was evaluated with serum creatinine and estimated with CKD-EPI formula.

Results: We found that creatinine values measured first time post-transplant was mildly correlated with recipient age ($p=0.04$), recipient weight pretransplant ($p=0.03$) and moderately correlated with hot ischemia time ($p=0.001$). Also, creatinine values measured at 3 months post-transplant were mildly correlated with recipient age ($p=0.04$), recipient weight pretransplant ($p=0.02$).The only variables that associated creatinine immediately post-transplant and at 3 months were recipient weight pretransplant and recipient age.

Conclusion: We showed that creatinine in kidney transplanted patients associate with biological parameters (weight, age) and organ preservation times.

(ID 189) Hyperamylasemia, a deceiving screening tool: a case series

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Aim: Serum amylase, composed mainly of pancreatic amylase (40%) and salivary amylase (60%), is a common marker for diagnosing acute pancreatitis. However, hiperamylasemia can have other causes which should not be ignored. We describe two cases of patients with abnormal serum amylase levels which are not associated with acute pancreatitis.

Methods: Case 1: A 90 years old female was admitted at the Emergency Room for abdominal pain. The biological examination revealed high levels of amylase (171 U/L), associated with increased concentrations of urea (89 mg/dL) and creatinine (8.46 mg/dL). The high levels of urea and creatinine led us to the possibility of a renal affection. Biological and imagistic parameters helped us to diagnose the renal insufficiency.

Case 2: A 56 -years old male was admitted to the Gastroenterology Department for abdominal pain. The biological examination revealed high levels of amylase (149 U/L). Physical examination helped us to diagnose a right pelvilingual tumor from which a biopsy was taken. The patient was reffered to a surgeon and an oncologist.

Results and Conclusions: We can notice high levels of amylase in other diseases besides acute pancreatitis. Unfortunately, hyperamylasemia of other causes is often misdiagnosed. Serum amylase is not a specific marker for acute pancreatitis diagnosis. High levels of amylase are associated with: renal insufficiency, variable tumors of oral cavity, small bowel, ovary and that's why a doctor should think outside the box.

(ID 193) A rare intrabronsic misdiagnosed malignancy

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Introduction: Adenoid cystic carcinoma (ACC) of the bronchus is a rare salivary gland-type malignant entity that occurs infrequently as a primary tumor of the airway. It represents only 0.04-0.2% of all respiratory tract cancers and is regarded as a slowly growing tumor. It affects both sexes equally and tends to occur in the 4th and 5th decades of life. There is no association with cigarette smoking or other carcinogens.

Case report: A 40-year-old man, ex-smoker (30PY), with history of allergy, presented with progressive shortness of breath and nonproductive cough that lasted 6 months before paying a visit to our hospital. He was misdiagnosed as asthma and treated with bronchodilators. His investigations revealed a normal chest X-ray and spirometry without reversibility response. At admission, he developed hemoptysis in the last days. HRCT scan demonstrated a large polypoid intraluminal mass arising from the left main bronchus within 8 mm of the carina, without mediastinal adenopathies. This tumor was in close contact with the esophagus but superior digestive endoscopy didn't identify local infiltration. A flexible-bronchoscopy showed an irregular protruded mass that causing obstructed with 40% of the lumen of the proximal left main-stem bronchus. Histopathological exam of a bronchial biopsy - cribriform and pseudo-tubular patterns of ACC. The tumor is considered resectable (T1cN0M0-IA3) due to its local extension. A surgical resection of the complete mass with end-to-end anastomosis between trachea and distal bronchus was done. Macroscopically: white tumor with 10mm in diameter and firm consistency.

Microscopically: tubular pattern of ACC. Postoperator - without lymphatic or hematogenous metastases.

Discussions: Prognosis depends on staging, histological pattern (solid pattern having the worst prognosis and tubular having the best prognosis) and complete resection. The survival was reported as follows: 85% at 1 year, 73% at 3 years, 57% at 5 years and 39% at10 years.

Conclusions: ACC is also known as cylindroma and due to its low incidence, we may miss an early diagnosis and thus lead to a delay in the treatment. Surgical resection followed by radiotherapy is widely recommended protocol for treatment of this localized tumors and provides the best chance of pronlonged survival.

(ID 198) Different techniques – same patology: Castleman's disease

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Aim: Castleman disease remains a rare condition associated with limph node proliferation. Diagnosis implies a complex evaluation with clinical, biological and imaging examinations.

Methods: We present a case of 50 years old female who was admitted at the Gastroenterology Department for asthenia and fatigability. Biological parameters showed anemia. We performed an abdominal ultrasound and we noticed paraduodenal the presence of a nodular lesion with a central scar. Upper and lower endoscopy didn't showed any lesion. We further performed computer tomography and endoscopic ultrasound.

Results: Computer tomography evidenced a paraduodenal lymph node enlargement with a central calcification.The endoscopic ultrasound showed a hypoecogene lesion with a central scar.

Imagistic methods helped us to diagnose the lymph node enlargement as Castleman's disease.

Conclusion: Castleman disease is a heterogenous entity which requires careful investigations and a multidisciplinary team.

(ID 200) An atypical case: The renal variant of Fabry disease in a young female patient

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Introduction: The realization that females heterozygous for mutations in the α-galactosidase A gene may experience significant manifestations of Fabry disease is relatively recent. Until recently was thought that females with Fabry disease experience mild manifestations such as painful neuropathy, as well as other features of the disease (cornea verticillata, angiokeratomas, hypohidrosis).

Case report: A 37 years old female with Fabry disease (confirmed diagnosis by genetic testing and enzymatic testing). Heredo-collateral history: mother, brother and uncle – Fabry disease. Personal pathological antecedents: hypertension (untreated until 2015), depressive syndrome (in treatment with Cipralex), erosive gastritis (2015), and cholecystectomy (2012). Clinical on admission: angiokeratomas, hypohidrosis, acroparesthesia. Taking into account the outcome of the genetic testing and of the enzymatic testing and the nephrotic rank proteinuria (approximately 4g/day) it is decided to carry out a renal biopsy in June 2015. Renal biopsy: Optical Microscopy - Two large glomeruli in volume and having permeable capillaries were examined. A third glomerule is completely sclerotic. Very common myelinus (zebra bodies) in podocytes, tubular epithelial and arterioles. Very common red blood cells. Marked interstitial inflammation. Electronic Microscopy: Glomeruli with hypertrophic podocytes containing frequencies of myelin-like bodies of different sizes and shapes. These lysosomal formations are characteristic of α-galactosidase A deficiency. Fabry disease: Fabry disease is a rare disorder of X-linked lysosomal storage resulting in deficiency of alpha-galactosidase A activity, which primarily affects the skin, the heart, the kidneys, the peripheral nerves and the brain. In Fabry's disease, Gb3 has been found to accumulate in many cells, including kidney epithelial cells (podocytes, tubular cells, glomerular endothelial cells, mesangial and interstitial), endothelial cells, vascular smooth muscle cells, cardiomyocytes and neuronal cells. Fabry nephropathy is an important feature of Fabry disease and a major cause of morbidity and mortality. In women, clinical manifestations are extremely varied from fully asymptomatic patients in patients with severe disease manifestations, similar to hemizigotic men.

The primary disease process begins in childhood or even in the fetal stage of development. Clinical manifestations of Fabry nephropathy are: microalbuminuria, proteinuria, isostenuria, progressive renal failure. However, unlike many other lysosomal storage diseases, most patients remain clinically asymptomatic in their first years of life. Treatment of Fabry disease: agalzidase beta-Fabrazyme, recommended for use at a dose of 1 mg / kg bodyweight, twice a month (one infusion every two weeks).

(ID 201) Correlations between renal function and cardiac involvement in patients with Fabry disease

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Fabry disease, an X-linked lysosomal storage disease, causes proteinuric nephropathy, chronic kidney disease, hypertrophic cardiomyopathy and cardiovascular dysfunction. Renal and cardiac involvement in Fabry disease are the major determinants of overall disease prognosis.

We evaluated the presence of nephropathy and cardiac involvement in patients with Fabry disease confirmed by genetic test and we caracterized the relationship between the markers of renal and cardiac function. We assessed renal function using serum creatinine, cystatin C and albuminuria. Chronic kidney disease (CKD) was defined as eGFR <60 mL/min/1.73 m2 and/or urinary albumin/creatinine ratio (ACR) ≥ 30mg/g. We collected clinical data and history of cardiovascular events. Cardiac evaluation included clinical exam, 24-hour HTA and ECG Holter monitoring and echocardiography. We measured left ventricular volumes at end-diastole and end-systole, left ventricular function and indexed left ventricular mass (LVMI). Statistical analysis was performed using IBM SPSS Statistics Version 21.

Between March 2015 and December 2017 we examined 26 patients (mean age, 40.2 years; range, 15–73 years), 14 males and 12 heterozygous females. 19 patients (73%) presented renal dysfunction. 13 patients (80%) presented eGFR <60 ml/min/1.73 m^2, and two patients presented with end stage renal disease and received a renal transplant as RRT. 9 patients presented ACR 30–299 mg/g, and 8 patients presented >300 mg/g. 19/26 patients had cardiac involvement.

19/26 had hypertrophic cardiomyopathy, 13/26 presented HTA, 13/26 had diastolic dysfunction, 12/26 had arrhythmia and 5/26 had pacing device. The severity of renal involvement in patients with FD has been correlated with the age of diagnosis of Fabry disease (p=0.04), elevated serum uric acid (p=0.0001), proteinuria (p=0.014), iPTH (p=0.001), increased LVMI (p=0.036), the presence of arterial hypertension (p=0.006), and stroke history (p=0.04). The LVMI had been significantly higher in patients with cardiovascular events, irrespective of renal function.

In conclusion, the severity of renal and cardiac involvement was associated with increased LVMI. We found that the severity of albuminuria was a marker of the severity of Fabry nephropathy, but we did not found a correlation between albuminuria and cardiac involvement.

(ID 202) Quality of life in patients diagnosed with cardiac ischemic disease and somatic complaints

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Aim: to evaluate quality of life in patients diagnosed with cardiac ischemic disease who associate somatic complaints, in order to find a more adequate treatment and improve their long term prognosis.

Methods: we selected 25 patients admitted to Clinical Emergency Hospital Sf. Ioan (n=20) and Clinical Hospital of Psychiatry (n=5), diagnosed with cardiac ischemic disease to whom we applied PHQ-15, GAD-7, PHQ-9 and SF-36. All patients had somatic complaints.

Results: 15 patients obtained a medium score in PHQ-15 for somatization, 7 had a low score and 3 had a high score. In GAD-7 for anxiety we obtained a high score in 5 patients, a medium score in 10 patients, while 10 patients had a low score. In PHQ-9 for depression we had 10 patients with medium score, 15 patients with low score and no patients with high score. In SF-36 we evaluated the physical and mental aspects of life quality, obtaining a medium score of 34.96/100 for physical and 47.54/100 for mental component.

Conclusion: Patients with cardiac ischemic disease who associate somatic symptoms have a lower quality of life, in both mental and physical aspects, and require psychiatric assessment (besides their cardiac assessment and treatment), in order to improve their long term prognosis.

(ID 204) Particularities of Wilson's disease in children

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Aim: Presenting the case of a family with 10 children, of whom 3 boys aged 12, 13 and 19 were diagnosed with Wilson's disease, probably genetically determined. Since 2014 they are patients of Fundeni Pediatric Clinic.

Material: The symptoms debuted at the 19 years old brother in 2011, with limb pain and skin burn sensations, for which he received symptomatic treatment at the local hospital. In 2013 the patient is readmitted for sclerotegumentary jaundice and diagnosed with HAV hepatitis and Wilson's disease. He received treatment for the two ailments, but in October 2013, the patient develops encephalopathy with right hemiparesys. Besides neurological impairment, the patient is also diagnosed with hepatic cirrhosis. In October 2014 is transplanted with whole liver and receives immunosuppressive treatment with Tacrolimus with favorable postoperative evolution. In August 2017, he abandoned the immunosuppressive treatment for about 30 days, the investigations carried out emphasizing late acute graft rejection. Treatment was reinitiated with good evolution. Given the significant family history, in 2013 we decided to conduct screening for Wilson's disease to other members of the family. Following the investigations carried out to the other 9 children, in 2014, the diagnosis of Wilson's disease without neurological impairment, was established for the 12 and 13-year-old brothers. Chelation treatment is hereby established with favorable evolution, with periodical reevaluation.

Results: Based on anamnestic, clinical and laboratory data, in conjunction with therapeutic effectiveness and clinical evolution, the diagnosis of Wilson's disease with hepatic impairment, without neurological symptoms was established in the younger siblings, in contrast to the older brother that had neurological symptoms and was transplanted with whole liver after liver damage. Genetic tests are to be taken in consideration to identify the susceptibility gene (ATP7B)

Conclusions: Although the diagnosis of Wilson disease is difficult to determine for the first case in a family, it should be considered the subsequent screening of other members of the same family, early diagnosis and chelation therapy initiation being helpful in avoiding severe and irreversible complications within this pathology. Liver transplantation is an excellent therapeutic option as long as the patient remains compliant for immunosuppressive treatment.

(ID 206) Is necrobiosis lipoidica a manifestation of cutaneous tuberculosis?

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Introduction: Cutaneous tuberculosis (CTB) is a relatively uncommon manifestation of TB, comprising 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 this case.

Case Report: A 71-year-old female was referred for dermatological evaluation due to round, tender, erythematous skin lesions on both lower extremities. The skin lesions had been present for some months and started as a small nodule, gradually increased in size, and spread in an annular fashion to form a plaque with warty surface. A punch skin biopsy showed papulonecrotic ulceration characterized by granulomatous inflammation, variable lymphohistiocytic vasculitis with necrosis in the superficial dermis and destruction of superficial small dermal vessels. Another lesion was biopsied and the histopathological examination cannot distinguish between necrobiosis lipoidica and tuberculids (two second opinions different). There were no night sweats, no weight loss and no pulmonary symptoms. She had a normal chest X-Ray, but the CT scan show subpleural nodular opacities without lymphadenopathy. No acid-fast bacilli (AFB) were demonstrated in sputum or bronchiolar lavage. Skin lesions and a strong positive Interferon Gamma Release Assay (IGRA)-reaction for M. tuberculosis infection, 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. The patients underwent 1 year of anti-tuberculosis treatment and the skin lesions shrunk in size, but there were still present at the end of treatment.

Discussions: Diagnosis of CTB is complicated and requires a full work-up, including a detailed history and physical examination; careful consideration of clinical presentation; laboratory testing (TST; serum QFT-G); skin biopsy with histological analysis and special staining methods for identification of AFB.

Conclusions: The lesions usually undergo necrosis, become crusted, and, once healed, often leave atrophic scars. This case report demonstrates the importance of a proper history and physical examination as well as diligent laboratory and diagnostic testing in determining the etiology of a suspicious skin lesion.

(ID 210) An informational platform for preventive healthcare: TORCH

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Introduction: During pregnancy, TORCH testing should be individualized and the medical recommendations should be performed accurately because of consequences that can be fatal for the fetus. The project aims to develop an intelligent system support for both parents and women who want to conceive. This system is based on modern information technologies existing at the involved SME, such as CloudView, Constellations and Web Development.

Materials and methods: This research is part of the on-going TORCH project, which aims to facilitate the communication between patients and doctors. It develops the specialized site for TORCH, an application for smart devices and a dedicated knowledge base. We researched regarding the existing applications and other features required by users and we developed the website using Wordpress. The platform integrates multiple functionalities, depending on user roles (such as pregnancy calculator for mothers-to-be) and displays personalized content.

Results: Within the TORCH project we define the risk of congenital infections and share content related to each user type: future parents, parents of children with a TORCH disease or simple users. The website is also a guide for the visitors, as they can use the analysis interpreter in order to check if any health parameters indicate the need of immediate medical assistance. The approach within TORCH is adapted for a large public, as it has an integrated medical dictionary for an easier content dissemination. In addition to this, we also share statistic data related to this topic for each county in a visual user-friendly manner. Also, an essential approach that we consider is the emotional impact of the platforms' content [4]. As a consequence, a part of the visual content is displayed only if the user agrees to visualize it.

Conclusions: TORCH project is an approach meant to inform the population regarding prenatal medical investigations and to offer guidance when needed, with no responsibility regarding the medical diagnosis. Its purpose is also to facilitate the communication between the patients and the doctors and to underline the importance of constant medical care.

(ID 211) New approach in minimizing health inequalities: piloting integrated services in communities

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Introduction: Romania has profound inequalities in health indicators between rural and urban areas and 45% of population still lives in rural areas. We implemented a project aiming to develop the local authorities' capacity to prepare project proposals of integrated services at community level and to implement pilot projects in the health and social field. The project was financed in the frame of Swiss-Romanian Cooperation Programme – Thematic Fund for Health.

Methods: the project was organized in two phases. In first phase 18 rural communities from three Romanian counties have been selected based on certain criteria. Intersectoral community teams were organized in each community. The teams followed a three-modules training program in health projects management. They developed their own project aiming to build integrated services in the community. Among the 18 projects, 7 were selected to be financed. In the second phase a coaching team provided support to the local teams in implementing the integrated models of care. A baseline qualitative survey has been performed initially. Projects indicators were monitored quarterly.

Results: The seven intersectoral teams implemented their projects during a two-years period, trying to build new models of care in communities. Main strengths were: the projects were based on a bottom-up strategy aiming of developing functional models of integrated health and social services in remote rural areas; the local teams had the ownership on the projects; they took the most appropriate decisions for their community; the models of services were built step by step, in accordance to the local needs. Main weakness was represented by the lack of tools for building the new model of care. Important legislative barriers and gaps were identified during the projects, but lessons learned are very important for reforming the community services, as stipulated in the National Health Strategy 2014-2020.

Conclusions: Integration of medical and social services in rural communities is a feasible way to improve the response to the needs of vulnerable groups, but beyond the local willingness to promote the change, a multilevel approach is needed in community, at county level and at the central one.

(ID 212) Data acquisition platform for health assessment of the persons working in underground environment

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Objectives: The subway is an important part of the current urban transportation infrastructure in Bucharest and a huge number of passengers commute every day using Metrorex network. There are many potential subway-related health and safety hazards for which data is extremely limited. The platform we present in this paper is a dynamic and reliable solution for monitoring both the work environment and people from underground metro communication centers as part of the Wins@Hi project.

Methods: The design of the platform follows the source-path-receptor approach related to health risk assessment. The first step is represented by risk source identification and a preliminary evaluation of the exposure. The risk sources include whole-body vibration (linked to back pain), exposure to heat, psychosocial stress and poor air quality.

For the receptor monitoring are considered non-invasive wearable sensors, which gather physiological data such as HR (heart rate), respiration, skin temperature, fatigue and posture. To obtain a complete image, parameters are continuously monitored using technologies such as Fitbit, which sends data to the API using BLE (Bluetooth Low Energy).

Regarding air quality was considered the measurement of various Particulate Matter (PM2.5 and PM10), other pollutants (i.e. CO, VOC, NO2, CO2) and parameters (temperature, humidity) based on sensor monitoring technologies (Libelium kits, uRADMonitor devices), which offer multiple connectivity options (Ethernet, Wifi or GSM).

Results: The main result is represented by the design and development of a platform that allow the monitoring of the health risk to which are exposed the working personal in the underground environment.

Conclusions: The platform within Wins@Hi project represents the basis for a decision support system development to reduce both the health and environmental risks regarding the persons working in the underground environment. In addition to this, we analyzed the health risks and the current solutions available and we described the first steps in implementing an innovative platform.

(ID 213) A case of amyopathic dermatomyositis – mix and match to get an efficient treatment

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Objectives: Juvenile dermatomyositis (JDM) is the most common inflammatory myositis in children, distinguished by proximal muscle weakness and a characteristic rash. The etiology of JDM is multifactorial, based on genetic predisposition and an unknown environmental trigger. Amyopathic dermatomyositis is a particular variant, with only skin findings characteristic of JDM, in patients who do not develop muscle weakness within 6 months and are not treated with immunosuppressive medication for at least 2 months.

Case presentation: The authors present the case of a 10 years old girl diagnosed with amyopathic dermatomyositis in the Pediatrics Department of „Grigore Alexandrescu" Emergency Children's Hospital. The onset was in February 2016 with an erythematous papular rash on the dorsal hand, the proximal interphalangeal joints and malar erythema. Initially the patient was investigated and treated for atopic dermatitis and allergic reactions. Over a course of 3 months, the lesions extended over the elbows and became purplish in color (heliotrope). The Gottron's sign was shortly present. Skin lesions were worsened by exposure to sunlight. The skin biopsy confirmed the clinical diagnosis of dermatomyositis (May 2016). The neurologic examination and the MRI of the muscle of the left thigh, together with normal muscle enzymes excluded the muscle involvement. The patient was put on a 2 months course of Methylprednisolone. Over the next 18 months the lesions extended to the lateral side of the arms, nuchal region and superior anterior thorax resulting in a V-sign (Octomber 2017). The patient was put on azathioprine. In February 2018 new heliotrope lesions involved the chin skin and the malar area. Hydroxychloroquine was added and a new course of corticotherapy was considered necessary.

Conclusion: The patient fulfils the criteria of amyopathic dermatomyositis. Even though there is no muscle involvement to this day, the extension of the skin lesions resulted in a therapeutic challenge to mix and match the efficient immunosuppressant scheme.

(ID 217) MECP duplication syndrome in male and Duchenne muscular dystrophy in female patients – case reports

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Background: The MECP2 duplication (Xq28 duplication) syndrome in males and Duchenne muscular dystrophy (DMD) in females are two extremely rare genetic disorders. Only over 200 MECP2 duplicatio cases have been described so far worldwide, while the female DMD is reported with a global incidence of 1/50.000.000. Both phenotypes are well known for the opposite sex, Rett syndrome (cause by MECP2 haplo insufficiency) in girls and DMD in boys being highly prevalent in the general population.

Case report: We present 3 cases, one boy with MECP2 duplication syndrome and 2 girls genetically diagnosed with DMD. The MECP2 duplication case is of a 5 year old boy with severe hypotonia, psycho-intellectual retardation, spasticity, and seizures without any presumptive clinical diagnosis or suspected genetic syndrome. Genetic testing was performed by using the array genomic comparative hybridization (aCGH) method and the result revealed a 494 Kb duplication within the Xq28 chromosome region including the MECP2 gene. The 2 female patients clinically suspicioned with DMD, with the onset of the disease at the ages of 8 and 11 respectively, have been genetically diagnosed by using a combination of genetic testing methods (dystrophin gene deletion/duplication analysis, dystrophin whole gene sequencing, whole blood karyotype).

Conclusions: Choosing the appropriate genetic testing method through genetic counselling is essential for the final diagnosis of the different genetic disorders, sometimes more than one genetic test possibly being needed in this process.

(ID 220) Atherosclerotic index-beyond dyslipidemia

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Dyslipidemia, but also hyperuricemia and the red blood cells and platelets quality and quantity can influence the evolution of the atherosclerotic plaque.

The aim of this study is to observe the correlations of the atherosclerotic index with serum uric acid and some hemogram parameters.

One hundred and six patients, 50-70 years old, without kidney or liver chronic disease, with high blood pressure stage 1, without dyslipidemia treatment, were observed from ambulatory medical office. Also, twelve healthy normal blood pressure subjects, 50-70 years old were involved. By using the atherosclerotic index calculated as: total cholesterol/HDLc with a cut off of 3.5, the patients were divided in group lowC (n=39, with low ratio, average 2.9) and highC (n=67, high ratio, average 5.1). Plasma variables were measured by spectrophotometry and liniar correlations were calculated.

In group highC versus lowC, higher values for uricemia ($p<0.05$), for ALT activity ($p<0.005$), for glycemia ($p<0.02$), for RBC, HCT, HGB ($p<0.001$) were measured. Positive correlations were calculated between the atherosclerotic index with uricemia ($r=0.26$, $p<0.05$), between cholesterolemia and medium corpuscular volume-MCV ($r=0.28$, $p<0.05$), and between triglyceridemia and medium platelet volume-MPV ($r=0.30$, $p<0.05$), and uricemia ($r=0.29$, $p<0.05$).

In conclusion, high atherosclerotic index is associated with red blood cell and plateletes parameters from hemogram, with high activity of ALT and high uricemia. These cluster modifications increase the cardiovascular risk.

(ID 222) Gonadal function in female pediatric survivors of hematopoietic stem cell transplantation after chemotherapy-only conditioning

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Background: Hematopoietic stem cell transplantation (HSCT) is a curative treatment for a variety of hematologic and non-hematologic diseases. HSCT survivors suffer from significant late effects that adversely affect morbidity, mortality, and quality of life, gonadal dysfunction being one of the most frequent late complication in HSCT recipients.

Objective: We investigated the frequency of gonadal dysfunction in our series of children treated with HSCT for different disorders following chemotherapy-only conditioning.

Material and method: We evaluated 16 female survivors of pediatric HSCT, from which 11 met the inclusion criteria (age >10 years at present evaluation, chemotherapy-only conditioning, a single HSCT, >1 year after HSCT). We assessed the gonadal function clinical and biochemical. Hypogonadism was defined as FSH >40 mUI/ml and/or substitution therapy in a girl >10 years of age, while a FSH level >10 mUI/ml in day 3-5 of the menstrual cycle was diagnostic for low ovarian reserve.

Results: In our study, 3 patients presented hypogonadysm, 6 patients had serum FSH between 10-40 mUI/ml and 1 patient presented oligomenorrhea, but normal serum FSH, LH and estradiol.

Conclusion: Our study showed that more than 90% HSCT recipients developed a degree of gonadal dysfunction after chemotherapy-only conditioning, emphasizing the need for counselling patients undergoing HSCT about gonadal impairment and fertility preservation options before the procedure.

(ID 223) High concentrations of seric chemokines in patients with allergic rhinitis (results of a pilot-study)

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Introduction: Allergic rhinitis (AR) is an immunoglobulin E – mediated inflammatory condition with a gradually increase in prevalence in the last two decades. The inflammatory reaction from nasal mucosa is triggered by perennial aeroallergenes (frequent – dust mites, molds, animal danders) or seasonal (pollens) primary through a Th2- mediated mechanism. Chemokines (CC) direct leukocytes movement during an immun response evolution. Recent studies indicated the implication of some of the CC in AR. MCP-1 (monocite chemoattractant protein-1, CCL2) favours Th2 recruitment and ENA-78 (epithelial-neutrophil activating peptide, CXCL5) and Interleukin 8 (CXCL8) magnifies Th17 cells recruitment. Th1 chemotactism is controlled by IP-10 (interferon gamma- induced protein10, CXCL10) and MIP (macrophage inflammatory protein, CCL3).

Objectives: Evaluation of seric values of CC in patients with AR with clinical symptoms comparing to healthy controls.

Methods: The study included 107 subjects: 66 patients (47 women) with AR diagnosed by an allergy physician according to ARIA criteria and 41 healthy volunteers (37 women). It were excluded patients with inflammatory and/or autoimmune diseases. We measured seric concentrations of MCP-1, MIP, ENA-78, Interleukin 8, IP-10 using Luminex method. Statistical analysis was done with SPSS 20.0. For determination of differences between AR group patients and control group it was used non-parametric Mann-Witney U test. Values $p<0,05$ were considered significant from the statistical point of view.

Results: It were recorded increased values in AR patients comparative to controls for MCP-1 (1016.55 vs 120.74 pg/ml), MIP (461.77 vs 6.06 pg/ml), ENA78 (1486.52 vs 1004.46 pg/ml), Interleukin 8 (75.4664 vs 12.54 pg/ml), IP-10 (17.14 vs 12.22 pg/ml).

Conclusions: Significant increased seric values of chemokines MCP-1, MIP and Interleukin 8 in AR patients with clinical symptoms comparing with healthy controls suggests the possibility of their utilization as activation disease markers. The results remain to be confirmed by larger studies.

(ID 225) A rare case of uncorrected double inlet left ventricle: a fragile balance

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Objectives: The spectrum of single ventricle morphology defines any congenital heart disease with a single atrio-ventricular connection. Survival into adulthood without a Fontan palliation is exceptional. We aim to report a case of a double inlet left ventricle (DILV) with a very precarious hemodynamic balance.

Methods: This is a single case report study. The patients was evaluated through transthoracic echocardiography and cardiac catheterization, with serum BNP, iron levels and six minutes' walk test (6MWT) being monitored every 3 months.

Results: We report the case of a 37 year old woman, diagnosed at birth with a complex cardiac defect, who remained asymptomatic up until the age of 22 when she developed fatigability while pregnant. After delivery she again remained paucisymptomatic for another 13 years, when herexercise capacity decreased following a large phlebotomy. Clinically he has a loud presternal murmur with a double Z2 sound in the pulmonary area. She walks 365 m on the 6MWT, with peripheral oxygen saturation dropping from 75% to 56%. Biologically she has an increased BNP value and decreased serum iron and ferritin levels. The ECG shows signs on right heart increased pressures and the 24h Holter shows episodes of isorhythmic atrioventricular dissociation. Echographically we found a single ventricle with both atria openings, suggestive of DILV, with preserved systolic function (Figure). There is a small posterior chamber, the restant infundibulum. Both atrioventricular valves were of mitral morphology, with moderate regurgitation of the posterior valve. There is discordant ventriculo arterial connection with the pulmonary artery emerging from the single ventricle while aorta emerges from the rudimentary infundibulum. We found a decreased pulmonary acceleration time and e mean pulmonary artery pressure of 56 mmHg. We performed an invasive study, which confirmed the diagnosis of pulmonary hypertension with increased pulmonary vascular resistances (14 Wu). Thus, the patient is not amenable to surgical palliation and was started on pulmonary vasodilators, bosentan, and iron supplements.

At one year she walks 100 m more at the 6MWT and has normal BNP values.

Conclusions: This case highlights the fragile balance we usually see in complex, uncorrected congenital heart disease. The patient was only symptomatic as long as another factor was acting (pregnancy or anemia). Although we saw a good response to specific therapy, the role of the pulmonary vasodilators in these patients remains controversial.

(ID 227) IoT platform for enhacing the quality of life: ESTABLISH

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Introduction: The thriving IoT sensor market set the premises for interconnected solutions, enabling two-way communication process between man and machine. The health sector is one of the key industries which benefits from this technological context, focusing on solutions for remote monitoring of health conditions. The ESTABLISH project proposes a smart health platform able to convert environmental (sensor) data into actionable information for users to provide a healthier and safer environment thereby improving the quality of life.

Materials and methods: The health impact of major air pollutants remained in the focus of many research papers and studies. In this paper, volatile organic compounds (VOCs) and particulate matter (PM) are correlated with the pathogenesis of some respiratory ailments diagnosed in children. In other studies the high PM concentration is linked to cardiovascular disease.

The goal of the ESTABLISH project pilot is to combine environmental sensor data with physiological and behavioral sensor data, seeking to improve the quality of life. The first group of patients within a recovery center will be monitored, registering their physical activities - with the help of smart bracelets that allow monitoring several biological parameters.

Results: So the patient workflow within the smart health platform is based on a therapy program designed of one or several personalized activities. In order to set the therapy program, the physical therapist has a set of standard activities (walking, running, and other specific exercises). To link the physical layout with environmental conditions, the physical therapist will set one or more rules, each of these rules will trigger a notification for the patient regarding the current activity. Also, the rule is composed of one or more conditions ran by the decision support algorithm which will verify if all the requirements are met.

Conclusions: The embrace of innovative technologies can and will enhance the quality of life. By researching innovative solutions based on the new wave of technologies – remote sensors, cloud resources, and sophisticated algorithms, we endeavor to achieve better numbers when will analyze the future statistics of the healthcare environment.

(ID 229) Phototherapy in psoriasis – a retrospective, analytic study

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Introduction & Objectives: Psoriasis is a chronic inflammatory disease, in which phototherapy plays a significant role in treatment, benefiting from a significant development lately.

The study aimed to determine the efficacy of phototherapy in psoriasis, identifying which type of psoriasis is more suitable for phototherapy and which types of treatments are adequate to be associated with phototherapy.

Materials & Methods: Our paper reports on a group of 61 patients with psoriasis. Data (demographical, PASI score, therapy protocol) was collected retrospectively between January 2016 and April 2017.

Results: A slight predisposition of males was noticed (M:F = 36:25), as well as an age peak in the 51-60 years old group (9.76%). The most prevalent clinical type of psoriasis was psoriasis vulgaris (98%), followed by palmo-plantar (1%) and gutate psoriasis (1%). The most frequently used type of phototherapy was nb-UVB (82%), followed by UVA1 (10%) and PUVA (8%). The highest number of sessions were attributed to nb-UVB phototherapy (an average of 13 sessions) and the lowest for PUVA (average 10 sessions). An overall decrease of PASI values was recorded, no matter which type of phototherapy was used (from an initial average value of 12.59 to 5.52.

All patients had other treatments associated with phototherapy, with topical treatment being the most frequently associated (56%), followed by systemic (21%), association between topical and systemic (15%) and patients comorbidities treatment (8%). 36% of the patients had undergone previous treatments for psoriasis, of which biologics were the most frequently used (40%), followed by topical (28%) and systemic treatments (20%). Almost half of the patients (46%) had associated diseases, with the most common being metabolic syndrome (37%) and the less common – psoriatic nephropathy (1%).

Conclusions: Phototherapy plays a major role in psoriasis management, both as monotherapy and in a combination regimen, in which topical therapy enhances efficacy, while lowers the risk of side effects. The most used type of phototherapy was narrow-band UVB, proven as most effective in terms of risk-benefit ratio. Still, although it comes with additional risks, PUVA can be efficacious more rapidly than other types of phototherapy.

(ID 230) Iatrogenic Cushing's syndrome in a patient with hemodyalisis and psoriasis

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Introduction: Iatrogenic Cushing's syndrome is a frequent cause of hypercortisolism caused by prolonged exposure to exogenous use of glucocorticoid products. Usually, topical steroids are preferred in order to maximize the therapeutic effects in the site of inflammation and minimize the systemic absorption. Clinical differential diagnosis of Cushing's syndrome could impose difficulties, especially in patients with multiple comorbidities.

Material and method: We describe the case of a forty six years old female patient with obesity, chronic renal insufficiency stage V (under chronic hemodyalisis), postsurgical hypoparathyroidism for tertiary hyperparathyroidism secondary to chronic renal disease, arterial hypertension and diabetes mellitus. The patient relates a 35 kg weight gain in the last 2 years. Two years ago, she was diagnosed with psoriasis vulgaris and received topical corticotherapy with Clobetasol (Dermovate) ointment (0.5mg/g-25g-1 or 2 tubes /daily in the last year), without reevaluation from dermatologist.

The physical examination reveals: morbid obesity: weight=128 kg, height=163cm, BMI = 48 kg/mp cushingoid facies (moon face) and buffalo hump, acanthosis nigricans, generalized psoriatic patches, candidal intertrigo (skin-fold areas: abdomen and groin), large purple striae on the abdomen, thighs and axillary region, lower limb pitting edema, skinny legs and muscle weakness, minimal effort dyspnea and hypertension (150/90mm/Hg). The paraclinical examination shows: ACTH=8.74pg/ml (NR=3-66pg/ml), 8 am plasma cortisol=1.67ug/dl (NR=4.82-19.5ug/dl), 23 pm plasma cortisol=<0.4ug/dl (NR=<10ug/dl), PTH=4.08pg/ml (NR=15-65pg/ml), 25-OH-vitamine D=15.10ng/ml (NR=30-100ng/ml), TSH=3.78uUI/ml (NR=0.5-4.5uUI/ml), FT4=15.3pmol/l (NR=10.3-24.4pmol/l), hyperglycemia (HbA1c=7.8%, NR=4.8-5.9%), hypocalcaemia, hyperphosphatasemia, asymptomatic hyperuricemia, hyperkalemia and hypercholesterolemia.

Results: The patient has been diagnosed with iatrogenic Cushing's syndrome caused by prolonged exposure to topical corticotherapy, therefore the treatment was withdrawn and replaced with non-corticosteroid ointments. The patient was carefully monitored, without developing an adrenal crisis during follow-up.

Conclusions: It is important to underline that every topic steroid has a systemic absorption and may potentially cause iatrogenic Cushing's syndrome. The treatment of iatrogenic Cushing's syndrome consists in gradual withdrawal of the causative drug, thus avoiding adrenal crisis.

(ID 236) EKG changes correlated to sleep deprivation

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Introduction: Sleep deprivation is a commonplace occurrence in modern day culture. One of the most susceptible categories of people affected by sleep deprivation are physicians. For them, the effects of sleep deprivation have repercussions on the performance of the medical act. During sleep deprivation, significant metabolic and hormonal changes occur, which negatively impact the proper functioning of the cardiovascular system. To increase energy during sleep deprivation, most doctors consume caffeine.

Material and method: We realized a prospective study that included 26 subjects, resident doctors. In these patients we compared the electrocardiographic parameters after a minimum sleep of 8 hours with the ECG changes occurring after sleep deprivation (after 24 hours on-duty call).

Results: After sleep deprivation, 69.2% of subjects experience an early repolarization syndrome on ECG; in 11.5% the ST segment is slightly elevated, and in all subjects, heart rate has decreased from mean 83 bpm to 69 bpm. In 55,6% of the subjects the U wave is present.

Conclusions: Sleep deprivation leads to important alterations of cardiovascular function. Also, stress and metabolic changes caused by sleep deprivation, create a link to cardiovascular changes which in time are associated with the occurrence of life-threatening arrhythmias.

(ID 237) Added value of MR enterography in small intestine disorders

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Objectives: To present the current preferred protocol for MR enterography, with its advantages in the non-invasive exploration of the small intestine. To underline the pearls and pitfalls of this method. To demonstrate the key imaging features in the most common pathologies identified in the patients enrolled in this study.

Method: A number of 26 patients (17 male, 9 female), recommended for MR enterography have been examined between January 2017 and December 2017 on a 1,5T Magnetic Resonance Machine with a dedicated scanning protocol including contrast media administration. Images of three dimensional acquisitions were reformatted in all planes, corrected for distortion and mathematical operations on images (such as subtractions of superimposition) were performed. All clinical information that the patient presented when investigated was recorded.

Results: Eight patients demonstrated small masses with various sizes, up to 2 cm, which were considered as being tumors until proven otherwise; five of them had strong suspicion following either small bowel endoscopy or barium studies. Six patients showed inflammatory bowel disease, three of those having synchronous large intestine affliction. Two patients had fistulas which were first demonstrated by CT and followed by MR enterography. Another two patients had subocclusive syndromes with indeterminable causes. The other six patients had no significant findings, out of which three were pediatric patients.

Conclusions: MR enterography is an imaging technique which is noninvasive and noniradiating, with proven usefulness in inflammatory bowel disease and some tumors. It is particularly helpful in young patients which need to be regularly submitted to abdominal imaging investigations, and in those cases where other imaging methods fail. Gadolinium-based contrast media is demonstrated to be less allergenic than iodine-based contrast media used in CT. The downfalls of the method could be MRI specific artifacts and adverse reactions to gadolinium such as nephrogenic systemic fibrosis, or the newly described accumulation in the cerebral and cerebellar nuclei, which remains to be investigated further, although unenhanced MR enterography still provides useful information.

(ID 240) Dipping pattern correlates with severity of renal failure in chronic kidney disease patients

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Aim: The aim of our study is to dipping pattern in chronic kidney disease (CKD) patients.

Method: We enrolled 83 chronic kidney disease (CKD) patients (9 patients CKD stage 2, 56 patients CKD stage 3, 18 patients CKD stage 4), mean age 65.6±11.2 years, 57 males (68.7%). All patients underwent 24 hour ambulatory blood pressure monitoring (ABPM). Echocardiography 2-D and M-mode was used to assess cardiac parameters and function. Doppler ultrasound measured carotid intima media thickness (IMT), presence of carotid plaques and stenotic lesions. Statistical analysis was performed using IBM SPSS Statistics Version 21.

Results: In our group, 32 patients (38.5%) were dippers (7 extreme dipper, 25 dipper) and 51 patients (61.5%) were nondippers (39 nondipper, 12 reverse dipper). We found significant differences ($p<0.05$) between dipper and nondipper groups regarding mean and median nocturnal values of BP, but not regarding diurnal BP measurements.

Percent of hypertensive nephropathy was similar, while nondipper patients had more frequent diabetic nephropathy (34% vs 12.1%, $p<0.05$) and less frequent tubulointerstitial disease (18% vs 39.4%, $p<0.05$).

Biological profile was similar between dipper and nondipper groups, except for estimated glomerular filtration rate eGFR, which was significantly higher in dipper patients (47.9±19 ml/min/1.73m2 vs 38.2±12.8 ml/min/1.73m2, $p<0.05$). Mean values of eGFR progressively declined from extreme dipper group to reverse dipper group.

Echocardiographic measurements showed significant differences regarding left atrium volume index LAVI (43.5±18.7 ml in nondipper vs 35.9±10.9 ml in dipper group, $p<0.05$). Also, nondipper patients had more frequent advanced heart failure (NYHA class 3 in 28.6% vs 9.1%, $p<0.05$)

Doppler ultrasound revealed higher IMT and more frequent carotid stenosis in nondipper patients ($p<0.05$).

Dipping status correlated with history of stroke ($p=0.05$), etiology of kidney disease ($p=0.036$), NYHA class ($p<0.0001$), carotid intima media thickness ($p=0.038$) and presence of carotid stenosis ($p=0.005$), eGFR ($p=0.005$)

Logistic regression analysis identified only renal function marker eGFR (p=0.009) as factor associated with dipping profile.

Conclusions: Our results demonstrated that dipping profile correlates with severity of kidney failure in CKD patients; early CKD stages preserve a favorable dipping profile, while patients with advanced CKD present mostly nondipper pattern.

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(ID 241) Approach to Cushing disease with persistent hypercortisolism after transsfenoidal surgery and radiotherapy – case report

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Introduction: Cushing disease is the most frequent cause of endogenous hypercortisolism.

It is caused by a tumor originating from the corticotroph cells of the pituitary gland, or rarely by corticotroph hyperplasia as a result of ectopic corticotropin-releasing hormone (CRH) secretion, which leads to excess adrenocorticotropic hormone (ACTH).

Methods: We are presenting the case of a 60-years-old female, with important cardiovascular disease (essential hypertension stage 3 with high additional risk, heart failure class II NYHA, angina pectoris, mixed cardiomyopathy), modified bazal glicemia, menopause at 54 years old (after total abdominal hysterectomy and bilateral salpingo-oophorectomy for a fibroid tumor). She was diagnosed with Cushing disease caused by a 25/13/23 mm pituitary macroadenoma, treated by transsphenoidal surgery, followed by gamma-knife radiotherapy and she was admitted in the Endocrinology Clinic of "Saint Spiridon" Hospital 3 months after radiosurgery for clinical and paraclinical reevaluation.

Results: The laboratory tests used to determine whether remission of Cushing disease has occurred include very low early-morning serum levels of cortisol or ACTH, low 24 h urine free cortisol levels measured in the first 2 weeks after surgery.

In this case, 8 months following surgery and 3 month after radiotherapy, the evaluation of the cortisolic status showed persistently high urine cortisol levels associated with high levels of ACTH. Thus it has been indicated directly suppress tumor ACTH with medications (somatostatin analogs such as Pasireotide).

Conclusions: Patients with Cushing disease are usually treated with transsphenoidal surgery, as this approach leads to remission in 70-90% of cases. The risk of recurrence of Cushing disease could reach 20-25% 10 years after surgery. Close follow-up and through evaluation of the cortisolic status will eventually dictate switch in treatment options and /or combined strategies overtime.

(ID 243) Lugol solution and the risk of Jod-Basedow phenomenon – case report

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Introduction: Graves disease is an autoimmune disorder characterized by hyperthyroidism due to circulating autoantibodies. Thyroid-stimulating immunoglobulins bind to and activate thyrotropin receptors, causing the thyroid gland to grow and the thyroid follicles to increase synthesis of thyroid hormones. Untreated, this disease may lead to severe thyrotoxicosis with complications: cardiovascular, ocular, psychiatric and in extreme cases thyrotoxic crisis with a high mortality rate.

Methods: We are presenting the case of a 50-years-old woman diagnosed in another service with Graves' disease and treated for many years with antithyroid drugs (ATDs).She was admitted in the Endocrinology Clinic of Sf. Spiridon Hospital for a relapse due to treatment discontinuation. The surgical treatment was planned and the preoperative preparation with Lugol solution was initiated. Due to a misunderstanding, the administration of iodine solution was extended for a period of about 30 days, thus generating the so-called Jod-Basedow effect, with the exacerbation of the manifestations of thyrotoxicosis and risk of thyroid storm. The patient received treatment with high ATDs doses, glucocorticoids, and beta-blockers, resulting in the progressive improvement of symptoms.

Results: The patient was discharged from hospital and given the risk of thyrotoxic crisis, the surgery was postponed. A month later, she underwent thyroidectomy without preoperative preparation with iodine solution. The operative and postoperative courses were successful.

Conclusions: In Graves' disease, the preoperative preparation of patients with iodine solution is preferred by most surgeons for avoiding perioperative complications due to severe thyrotoxicosis. This treatment must be performed in hospital under close supervision by medical personnel, in order to avoid such complications like Jod-Basedow phenomenon and thyroid storm. Thus, surgery remains a safe therapeutic option for Graves' disease in many circumstances.

(ID 245) Diagnostic difficulties in a case of rare congenital heart defect associated with fetal ureterohydronephrosis

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Introduction&Objectives: Congenital heart defects represent a diagnostic and therapeutic challenge for current Obstetrics. These can be isolated, associated with other fetal malformations or characteristic of genetic syndromes. From these, corrected transposition of the great arteries is described as a cardiac abnormality, characterized by both atrio-ventricular and ventriculo-arterial discordance. The objective was to diagnose and evaluate the severity of this rare case of cardiac disorder.

Material&methods: We report the case of a 30 years old woman, who was highlighted in accordance with the national prenatal care program at 5 weeks of pregnancy. She performed appropriate first trimester trials, first trimester fetal morphology and double test that did not identify risk for most frequent fetal trisomies. At the second trimester fetal morphology, a major cardiac malformation, Fallot tetralogy type was suspected. Subsequent follow-up examinations of doctors in maternal-fetal medicine have identified a suggestive modified cardiac morphology for a cardiac congenital defect: corrected transposition of the great arteries. Moreover, at 25 weeks of gestation, a significant left-sided fetal ureterohydronephrosis has been identified.

Results: Evolution during pregnancy was favorable for the mother. The fetus has not developed signs of cardiac decompensation, but the ureterohydronephrosis has increased by the term of pregnancy. The fetus was extracted by caesarean section at 38 weeks of gestation, a female fetus of 2800 g fetus, with an Apgar score of 7. Neonatal evolution was without complication, with discharge at 8 days postpartum.

Conclusions: The particularity of the case consists of a congenital heart defect that represented a diagnostic challenge through the multitude of differential diagnoses that were suspected due to circulatory problems that accompany them, but especially its association with a renal malformation without being characteristic of a syndrome known or described in the medical literature.

(ID 248) Upper limb complex trauma – 3 years retrospective study

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Introduction: Severe limb trauma affects bone structure and soft tissues with peripheral or arterial involvement. Vascular lesions occur in 40% of cases in the upper limb and are an emergency that can endanger the integrity and functionality of the distal part of the limb.

Materials and methods: In this study we analyzed the medical history of 80 patients admitted to SCUB's Plastic Surgery Clinic in the period 01.01.2015-31.12.2017. For statistical analysis of the data I used the software SPSS, GraphPad and XL.

Results: Most patients with arterial disease are male (98.7%) aged between 31 and 50 years with almost symmetric distribution depending on the home environment, with more frequent impact of the left upper limb at the distal and middle forearm level 1/3 (80%), 77.5% representing accidental cuts. In case of isolated lesions from the radial or ulnar artery, arteriography was performed for 27% of patients. In case of isolated damages to both arteries or brachial trunk, revascularization was an immediate urgency. Depending on the procedure chosen (arterial ligature / arteriography) and associated lesions, the duration of hospitalization varied between 4 and 21 days, most patients requiring between 8 and 14 days of inpatient care.

Conclusions: The knowledge of revascularization techniques is essential in the management of the complex traumatic pathology of the upper limb. In some circumstances, it is necessary to revascularize in the microsurgical field in order to obtain an adequate functional result, being dependent on the associated lesions, the early postoperative management, the recuperation program and the periodical re-evaluations carried out by the plastic surgeon.

(ID 249) Ultrasound evaluation of fetal movement – case report and literature review

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Introduction: Reduced fetal movement are associated with increased risk of stillbirth after 28 weeks of pregnancy. The majority of studies have focussed on maternal perception of reduced fetal movements, which is associated with stillbirth via placental dysfunction.

Case report: The patient KL, 28 year of age, referred to our clinic for pregnancy prenatal care. The first trimester ultrasound examination and screening indicated low risk for trisomies 21, 18, 13, preeclampsia and intrauterine fetal growth restriction. Starting with the 16-th week of gestation ultrasound scan identified reduced fetal lower limb movements with excessive extension. The second trimester ultrasound examination was negative for fetal structural anomalies. The differential diagnosis was made with arthrogriposis, but we didn't identify other ultrasound anomalies. We observed that fetus had only two lower limb flection during. The position of the lower limbs was in extension until birth with reduced fetal movements. A genetic consult was made but without specific recommendations.

The outcome of the pregnancy was favorable without fetal changes until birth. The patient delivered by cesarean section a 3200 g baby-boy with 9 Apgar Score. The neurologic and orthopedic examinations of the fetus were normal. The baby had normal movements of the legs.

Conclusion: The peculiarity of this case is a fetus with reduced fetal movements during second and third trimester of pregnancy without apparent neonatal consequences. Extended follow-up of the baby is still required in order to exclude late onset of neurologic disease.

(ID 250) Non-invasive methods to evaluate intrauterine fetal growth restriction

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Introduction: Impedance cardiography investigation in pregnant women is important because it is non-invasive and easy to perform. Intrauterine fetal growth restriction (IUGR) is a for obstetricians. The purpose of our study was to evaluate hemodynamic changes in pregnancies with IUGR 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 fetal weight and intrauterine fetal growth restriction evaluated using fetal ultrasound.

Results: Our study included 30 women: 15 with normal third trimester pregnancy and 30 women with third trimester pregnancies complicated by IUGR. The patients received no medication that could influence hemodynamic monitoring. We analyzed the parameters of the patients with uncomplicated pregnancy and we found that the results follow the basic hemodynamic profile of pregnancies monitored with invasive techniques. The results for IUGR were: higher cardiac output in the third trimester (DC = 5.48 ml / min) based on cardiac frequency (FC = 94.89 beats per minute) and an increased myocardial contractility compared to uncomplicated pregnancy (DC = 5.28 ml / min, FC = 87.37 beats / min).

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

(ID 251) Obstetrics ultrasound simulation an useful tool for midwives training

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Introduction: Simulation training proved to be a powerful and evidence-based teaching method in healthcare. It allows participants to achieve essential competences that could be otherwise difficult. Simulation training can involve role play, virtual reality or patient simulator manikins to replicate clinical scenarios and assess the nursing student's ability to, for example, undertake clinical observations or work as part of a team. Simulation training enables participants to practice clinical skills in a safe environment.

Material and methods: We realized a simulation work-shop on obstetrical ultrasound. We used an ultrasound simulator with third trimester pregnancy videos. The participants were midwives. We divided the workshop participants in two study groups according to their professional experience: group A (midwives with more than 5 years of practice) and group B (midwives with less than 5 years of practice). They had to determine the fetal position in uterus and measure biparietal diameter (BPD), fetal head circumference (HC), fetal abdominal circumference (CA) and femur length (FL). We evaluated the time spent for achieving each image, the number of images obtained in 10 minutes of examination and the images quality.

Results: Our study included 30 participants with 15 midwives for each study group. We observed that midwives for group A were more rigorous in obtaining images because 85% of total images were correct compared with 63% from group B. The group B midwives obtained images faster (in less than one minute per image) compared with group A (mean time 1.4 minutes). Group B also obtained more images in ten minutes compared with group A (6 images /versus 4 images). LF was the most difficult image achieved for both groups.

Conclusions: Our work-shop evidenced that professional experienced midwives can obtain better images but in longer examination time compared with less experienced midwives that had more images with inferior quality. Obstetrics ultrasound is a perfect model for medical simulation revealing the weak spots in skills to be gained and providing the possibility of mending it.

(ID 16) Gallbladder adenomyomatosis management in a patient with sickle-cell disease

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Introduction: Adenomyomatosis is a proliferation of the muscular and epithelial layers of the gallbladder. It involves the creation of diverticula, called Rokitansky-Aschoff sinuses and is usually asymptomatic. It can lead to cholecystolithiasis, and it may imply higher prevalence for gallbladder adenocarcinoma. Sickle-cell disease is a hemoglobinopathy that involves the synthesis of abnormal hemoglobin. By modifying the properties of the erythrocyte, it increases the risk of hemolysis and occlusion of blood vessels. 20-30% of sickle-cell syndromes are heterozygous SC sickle-cell disease (or sickle hemoglobin C disease)- which manifests a milder clinical form than sickle-cell anemia (homozygous hemoglobin S), with milder hemolysis, but more frequent proliferative retinopathy.

Methods: We report the case of a 46-years old male, with a history of asymptomatic chronic cholestasis. He was referred for a cholangio-MRI, which discovered specific lesions for adenomyomatosis and lithiasis in the gallbladder, and pancreas divisum. From the patient's history we note chronic consumption of alcohol, tobacco, cannabis, Dupuytren's contracture and heterozygous sickle-cell disease (previously complicated by a proliferative retinopathy and several vaso-occlusive crises during childhood).

Results: The management of the case was surgical, and the patient was referred to the Digestive Surgery Department for a cholecystectomy. Before the procedure, the patient underwent an exchange transfusion, which lowered the HbS concentration under 40%. The cholecystectomy was performed laparoscopically, paired with a cholangiogram. The postoperative evolution of the patient was favorable, without complications, including vaso-occlusive crises.

Conclusion: Sickle-cell disease involves a higher risk of developing pigment gallstones, as a result of hemolysis: an incidence of 25%- 45% of calcium bilirubinate calculi is reported. Furthermore, an acute cholecystitis complicating an asymptomatic lithiasis may trigger a vaso-occlusive crisis. In this context, the presence of adenomyomatosis was an additional argument for the surgical management of the patient.

(ID 34) A case of synchronous cutaneous lymphoproliferative disease and breast cancer

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Introduction: Primary cutaneous lymphoma is a rare non Hodgkin lymphoma with an annual incidence of 1 per 100000 persons, affecting patients in their 50s and 60s. The subgroups of the cutaneous lymphomas are represented by the cutaneous T-cell and B-cell lymphomas. Most skin lymphomas are T-cell lymphomas: Mycosis fungoides, Sezary syndrome, Primary cutaneous anaplastic large cell lymphoma and other rare T-cell lymphomas.

Objective: The aim of this paper is to present the importance of a good management of a soft tissue tumor mass and the postoperative treatment in cutaneous lymphoproliferative diseases.

Methods and results: We report a case of a 61-year-old female presented to the Department of Plastic Surgery of "Prof. Dr. Agrippa Ionescu" Emergency Clinical Hospital with a 4/3 cm painful tumoral mass surrounded by cellulitis located in the right submammary area. The lesion appeared and increased in size in one month. The tumor was surgically removed with oncological safety margins and sent for histopathological evaluation. The histophatological examination revealed a cutaneous lymphoproliferative disease. Postoperative results were favorable, but the computed tomography showed a tumor mass in the right breast. A breast biopsy was performed and stage I invasive ductal carcinoma was detected. The haematologist recommended postoperative radiotherapy.

Conclusions: The main step in the treatment of cutaneous lymphoproliferative diseases is the excisional biopsy which highlights a proper diagnosis. The diagnosis must be established after that the histopathological features and the clinical aspects are carefully correlated. Being a rare lymphoma the cutaneous lymphoproliferative disease has not yet a standard therapy, requiring longterm systemic medications in order to prevent progression. Radiotherapy is recommended on the affected cutaneous areas. A full computed tomography examination must be done in order to detect other visceral and nodal diseases.

(ID 37) A case of giant dermatofibrosarcoma protuberans

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Introduction: Dermatofibrosarcoma protuberans (DFSP) is a rare malignant soft tumor with an annual incidence of 4.5 per 1000000 persons, most commonly occurring between 20 and 50 years of age. It is considered a locally aggressive cutaneous sarcoma with high rate of recurrence following surgery, but seldom metastasizes, affecting the lungs and the regional lymph nodes. In general it is located on the trunk in almost 50% of cases, followed by the upper and lower extremities in 30-40% of cases.

Objective: The aim of this paper is to present the surgical treatment of a rare giant dermatofibrosarcoma.

Methods and results: We report a case of a 58-year-old male presented to the Department of Plastic Surgery of Prof. Dr. Agrippa Ionescu Emergency Clinical Hospital with a 16/11 cm bulky tumor on right shoulder. According to the patient, he had first noticed a 3-cm tumor mass on his shoulder 10 years ago, that has grown slowly since then to reach its present size. No enlargement of cervical and axillary lymph nodes was present. A wide surgical resection of the tumor with oncological safety margins and supraclavicular lymphadenectomy were performed. The histophatological examination revealed a dermatofibrosarcoma protuberans with negative margins and the immunohistochemical analysis with CD-34, confirmed the diagnosis of DFSP. Supraclavicular lymph nodes were not affected. No adjuvant therapy was necessary.

Conclusions: The first-line treatment of DFSP is wide surgical excision with 2-3 cm of surrounding healthy tissue. Radiotherapy has limited use in the treatment of DFSP, but can be indicated when the excisional margins are positive or when wide resection is not possible due to cosmetic or functional impairments.

Chemotherapy with imatinib mesylate is recommended in metastatic disease and/or in cases of recurrent DFSP.

(ID 50) Acute suppurative otitis media on the HIV patient

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The presence of HIV changes the aspects of a simple inflammatory ENT disease. The autors wants to present an apparently simple acute otitis media case of an adult female patient, but in the following diagnosis steps appears to be particular because the patient was incidentally discovered to be HIV positive. The management of the case was based on the interdisciplinary collaboration between ENT and Infectious diseases departments. The prognosis of acute suppurated otitis media in a HIV positive is better if the patient is maximally and quickly treated by ENT and Infectious diseases point of view.

(ID 67) Cervical suppurations – Diagnostic and therapeutic challenges

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Through this paperwork the authors propose to bring into discussion a pathology with multidisciplinary implications, for which the diagnosis should be early and the treatment as swiftly and correctly directed due to the often fatal prognosis. The particularly serious pathology of cervical suppurations still raises diagnostic and therapeutic problems although we have modern imaging investigations and last generation antibiotherapy options. The good results we have obtained in treating these cases would not have been possible without interdisciplinary collaboration with thoracic surgery, radiological imaging investigations, anesthesia and intensive care support, antibiotic surveillance by an infectious disease physician, physical and mental rehabilitation by physical, psychiatric and psychological recovery. The experience of ENT department from Hospital Coltea in treatment of this pathology is well recognized, but it is based not only on specific surgical interventions but also on interdisciplinary collaboration.

(ID 73) Surgical technique for 2 stage arthroplasty after periprostetic knee joint infection

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Objective: Presenting the surgical technique used in component extraction and local tissue management in periprostetic joint infections of the knee.

Method: A patient that benefited from total knee arthroplasty presented with pain, swelling, hyperemia and hyperthermia of the endoprostetic knee short time after a pneumonic episode. The patient was diagnosed with periprostetic joint infections and consented to component extraction, debridement and antibiotic loaded spacer implantation followed by a course of IV antibiotherapy.

Results: Pain biological markers of inflammation decreased after surgery, pointing to infection resolution. After 6 weeks of antibiotic treatment the patient was scheduled for spacer extraction and revision arthroplasty.

Conclusion: When facing a periprostetic joint infection it is mandatory to extract the components, carefully and thoroughly debride bone and soft tissues and follow up with at least 6 weeks of antibiotic therapy in order to achieve infection resolution.

(ID 75) Surgical technique for RASL in scapho-lunate lesions

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Objective: Reduction and Association of Sacphoid and Lunate or RASL is a surgical technique used in the treatment of scapholunate instability. The current paper will present the surgical treatment option.

Method: A patient that referred to the clinic for pain and loss of function in the right hand progressively installed over a 3 month period after apparently minor trauma was diagnosed with scapholunate instability and benefited from scapholunate association and fixation with a headless compaction screw and dorsal capsulodesis, with a thorough physical therapy programme after surgery.

Results: The patient is pain free, returned to usual activities with minimal stiffness at wrist level.

Conclusion: RASL procedure proves to be efficient in treating scapholunate instability and should be highlighted for being minimally invasive and reproductible.

(ID 76) Avoiding vascular compromise of the radial artery during a ganglion cyst excision: case report

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Objective: Using surgical loupes aids in dissection precision when negotiating excision of tumoral entities and local tissue preservation.

Method: A patient that referred to the clinic for tenderness and appearance of a mass of tissue proximal to the wrist crease of the left wrist, spanning over 6 months. The patient benefitted from microsugical dissection and excision of what proved to be a ganglion cyst that engulfed the radial artery.

Results: The artery remained patent at the end of surgery with total excision of the cyst.

Conclusion: The use of surgical loupse greatly increase the quality of local tissue management during surgery.

(ID 77) Combined open aponevrectomy with PIP arthrolysis for fixed flexion contracture in advanced Dupuytren's disease: case report

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Objective: Correction of long standing finger contracture in Dupuytren's results in the association of arthrolysis and ligament release to the aponevrectomy. This paper highlights the surgical technique involved.

Method: A patient that referred to the clinic for progressive contracture of the bilateral ring fingers with stage III on the right hand over a period of 3 years benefited from open release, excision of the contracting chords, volar Proximal InterPhalangeal or PIP 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. A splint was used after surgery, everyday for 10 days and at night time for the next 4 weeks.

Results: The patient recovered function in the finger, is pain free and presents no dysesthesia of the digital nerves.

Conclusion: For full recovery of function in the severely contracted finger in Dupuytren's disease, the surgical team must consider PIP arthrolysis in conjunction with open aponevrectomy.

(ID 80) Mediastinal involvement in lung cancer

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Objectives: Mediastinal involvement in lung cancer may be by direct tumoral invasion (T4) or by lymph node metastasis (N2, N3).

Methods: In T4 tumors with mediastinal invasion, the surgical treatment has an important role as long as the tumor is completely resected and the mediastinal lymph nodes are not affected.

In lung cancer patients with mediastinal adenopathy, clinical stage III, there is no consensus in management, surgery plays an important role along chemotherapy and radiation – multimodal management.

Results: In every case of broncho-pulmonary cancer, the diagnostic of the mediastinal lymph nodes plays a central role for accurate staging and diagnostic. After the initial CT-scan evaluation, current guides recommend PET-CT, EBUS-TBNA and mediastinoscopy for mediastinal staging. Other methods are EUS-FNA, thoracoscopy, VAMLA and TEMLA.

Conclusions: Except VAMLA and TEMLA, there is no method adequate for mediastinal staging as the surgical lymphadenectomy.

(ID 81) Posterior approach: VATS pulmonary resection and mediastinal lymph node dissection in lung cancer

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Objectives: anatomical lung resections are the mainstay of the thoracic surgery for over a century. With the advent of thoracoscopy in the surgical treatment of thoracic pathologies different approaches were designed. The indications or objectives of the treatment never changed. The anterior approach is widely preferred technique in the majority of the thoracic surgery centers. In this paper we present a peculiar approach – the posterior approach of the hilum already described for the open surgery but scarcely used for thoracoscopic surgery. The most important advantages for this approach are: easy access to the bronchial branches and the pulmonary arteries even in the fissureless cases or when performing segmentectomies; another important advantage is represented by the easier access to perform mediastinal lymph node dissection.

Methods: in Romania, until now, minimally invasive thoracic surgery wasn't well established; in our department we are developing a video assisted thoracic surgery program for lung resection by posterior and anterior approach of the pulmonary hilum also – the clinical benefits are related more to the method than to the approach.

Results: performing the anterior and the posterior approach also, we expect to observe a superiority of the latter in terms of safety, intraoperative orientation and ergonomics especially considering that the current trend favors sublobar resection even for lung cancer.

Conclusions: minimally invasive thoracic surgery is the surgery of the day with clear benefits for the patient. The posterior approach represents a method adopted by the surgical team for easiness and safety in performing anatomical lung resection.

(ID 85) Laser resection of pulmonary metastases – our experience

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Introduction: The lung is a target organ for many malignancies which result in metastases of different origins. Surgical resection of pulmonary metastases is today considered a standard therapeutic procedure. Laser resection improves any kind of lung metastasectomy and facilitates the lobe sparing resection of a significantly higher number of metastases.

Material and Method: We present our experience with the use of the diode-pumped Nd:YAG laser Limax 120 in pulmonary metastasectomy. We performed pulmonary metastasectomies in over 90 patients in a 2-year period. 10 of them were operated mininvasively – by toracoscopy or VATS.

Results: We encountered more than 18 histological types of metastases with breast, genital, colorectal and pulmonary being the most common. We had very few complications air leaks being the most frequent. We also performed a comparison between pulmonary laser resection and classical methods of lung resection (electrocautery, staplers) and a review of the literature.

Conclusions: The Nd:YAG laser system facilitates any kind of parenchymal lung resection in lobe-sparing manner improving the operability, prognostic and survival of patients with pulmonary metastases.

(ID 87) Plastron apendicular abcedat cu absenta coalescentei colonului drept, simuland diverticulita acuta sigmoidiana abcedata

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(ID 95) The essential role of mitral valve repair in a patient with hypertrophic obstructive cardiomyopathy undergoing septal myectomy – what to cut?

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Objectives: Mitral regurgitation and atrial fibrillation are common complications in hypertrophic obstructive cardiomyopathy (HOCM), promoting heart failure (HF). When surgical treatment is indicated for significant outflow obstruction with systolic anterior movement of the mitral valve (SAM), septal myectomy should be completed with mitral valvuloplasty by cutting secondary chordae, otherwise surgical result is sub-optimal.

Methods: Male, patient 75 years, with history HOCM and septal myectomy, grade I AV block and LBBB (both post surgery), paroxysmal atrial fibrillation despite amiodarone treatment for last 11 years and progressive HF symptoms, reconsidered for re-do surgery to remove obstruction.

Clinical findings: systolic murmur in Erb's area, BP=130/70 mmHg, HR=52 bpm, bilateral vesicular murmur, no signs of congestion.

ECG: sinus rhythm, LBBB.

Echocardiography: hypertrophy of IVS (25 mm), posterior wall 14 mm, preserved LVEF=60% despite LBBB, extensive calcification of mitral valve annulus with SAM of the anterior leaflet, grade II-III mitral valve regurgitation, no pulmonary hypertension, subaortic gradient = 43 mmHg (increasing to 120mmHg at Valsava), severely enlarged left atrium of 190 mL. Coronarography and ventriculography: normal coronary arteries, intraventricular obstruction with maximum gradient=40 mmHg, postextrasystolic gradient =79 mmHg. Cardiac MR was performed for better surgical planning.

Results: Surgical treatment: large septal myectomy and mitral valve repair (by cutting as many as 5-6 anterior second chordae) were performed. No mitral ring was needed, no mitral regurgitation was observed at post CEC transesophageal echocardiography. After surgery the patient remained in AF initially poorly tolerated, with no subaortic gradient. Digitalis was added to beta-blocker, with compensation of HF. LVEF >50%.1 month follow-up, the patient stayed in NYHA II class HF, no residual mitral regurgitation.

Conclusions: Addition of mitral valve repair to septal myectomy in patients with HOCM increases their life expectancy (equal to general population). Even in the case presented, with long standing disease and high preoperative risk of mitral valve replacement and cardiac pacing, surgery was successful and conservation of native valve was possible. With a very large LA, maintaining SR after surgery was however impossible. Patients with LBBB, in the presence of HOCM, rarely require cardiac resynchronization therapy, as they preserve systolic function.

(ID 97) A rare case of multiple recurrences of right ventricle primary malignant fibrous histiocytoma

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Objectives: Primary malignant fibrous histiocytoma (MFH) is one of the rarest types of cardiac tumors, with poor prognosis. The typical localization is in the left chambers (left atrium).

We present a case of right ventricle primary malignant histiocytoma requiring repeated cardiac surgery. To our knowledge, there are only 5 cases involving the right chambers ever reported in the literature (in Romania this is the second case).

Methods: Female patient, 26 years, with history of MFH of the right ventricle, who underwent 2 surgical excision procedures during the last 3 years, both followed by 6 chemo sessions, presented to the hospital with severe right heart failure (RHF) symptoms. Clinical examination: BP=100/60 mmHg, systolic murmur in the tricuspid area, hepatomegaly and peripheral edema. Echocardiography on admission: recurrent right ventricle (RV) tumor (7/5.6 cm), occupying 75%-80% of the ventricle, with prolaps in the right atrium (RA), well defined, originating from the interventricular septum (IVS), with paradoxal motion of IVS, RVSP=40 mmHg, and severe tricuspid regurgitation. LVEF=45%, TAPSE=12 mm.

Results: Cardiac surgery: a mass of 10/6 cm, involving the tricuspid subvalvular apparatus, trabeculae and IVS (2.5cm2) was excised, along with the anatomical elements described and a second tumor(1/0.5 cm) just right beneath the tricuspid valve (septum leaflet). Replacement of tricuspid valve with biological prosthesis was also performed. Postoperative echocardiography: paradoxal motion of IVS, normo-functional prosthetic valve, LVEF=55%, slightly enlarged RV, RV free wall hypokinesis, RVSP<10 mmHg, TAPSE=13mm. Clinical course was favorable, with minimal complications (anemia and pleural effusion). One year later patient came with tumor recurrence and obstruction of the RV outflow tract, despite chemotherapy. Computer tomography showed bilateral lung metastases, making a new intervention futile. The patient died 2 years after last surgery with refractory right heart failure.

Conclusions: Surgical excision is the only option in cardiac MFH, as the tumor does not respond to chemotherapy or radiotherapy. Recurrence of the tumor is however frequent and mortality very high. In this case, life was prolonged for 5 years, with the burden of 3 surgical interventions and prolonged chemotherapy.

(ID 104) Endoscopic approach of nasopharyngeal angiofibroma

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Objectives: Nasopharyngeal angiofibroma (also called juvenile nasopharyngeal angiofibroma -JNA) is a highly vascular tumor that arises in the proximity of the posterolateral nasal wall next to the sphenopalatine foramen. The tumor is known for its occurrence in adolescent males, local aggressiveness with possible development from the nasal cavity to the nasopharynx, paranasal sinuses, orbit, skull base, pterygopalatine and infratemporal fossa. The treatment of choice for JNA is surgery; various surgical approaches were described, mostly external approached. In recent years, these methods were replaced by the use of endoscopic techniques, even in large JNA tumors.

Methods: A 16 years old patient was admitted with repetitious massive bleeding from the nose. After the CT and MRI examination, a tumor was discovered on the right side with intracranial extension and important vascularization.

Results: An embolization was made and 48 hours later the surgical intervention was done. A complete ablation is performed without a CSF fistula, and then the tumor is segmented in the intranasal and intracranial poles. Firstly, the intranasal pole was removed, then the intracranial one. During the procedure, the intraoperative bleeding was of 180 ml blood.

Conclusions: Nowadays, with the evolution of endoscopic instrumentation and techniques, endoscopic removal has become the approach of choice for JNA tumors. The use of coblation surgery, if done correctly, is very efficient, resulting: less disability in patients, less hospitalization time and lower rates of intraoperative bleeding. Other advantages are: avoidance of scars on the face, resection of the least amount of normal soft tissue and avoidance of the destruction of facial bones and occurrence of late facial deformity.

(ID 112) Vaginal microbiota and cervical intraepithelial neoplasia

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Objectives: Patients who develop precancerous lesions of the cervix (cervical intraepithelial neoplasia CIN) are characterized by the presence of a persistent genital infection with at least one high-risk human papilloma virus (HPV) strain. The influence of the vaginal microbiota and hormonal milieu is suggested by very recent studies in the field. Thus, the presence of lactobacilli is considered a protective factor. A very loaded vaginal microbiota, with different bacterial species enhances the risk of persistence of the HPV infection, leading inevitably to dysplastic cervical lesions.

Method: We retrospectively analyze a group A of 50 HR-HPV infected patients with CIN I-III, with respect to vaginal and cervical microbiota, compared to a group B of 50 patients without high-risk HPV infection. We collected data regarding: vaginal pH, vaginal smears, aerobic and anaerobic vaginal and cervical cultures, nuclear amplification tests for Chlamydia trachomatis, Mycoplasma genitalium, Ureaplasma urealiticum (at least two examinations during 12 months).

Results: All patients with CIN and persistent HPV infection exhibit at least one alteration of the microbiota (either vaginal flora alteration, a history of bacterial vaginosis or the detection of at least one vaginal or cervical infection). The high frequency of anaerobic flora development (Peptostreptococcus, Atopobium, Gardnerella, Fusobacter) is emphasized at the expense of lactobacilli. The theoretical concept of protective vaginal and cervical biofilm appears to be consistent in patients at risk of developing major CIN. The literature seeks to understand the molecular mechanisms that can underlie, in the sense of influencing the host defense mechanism.

Conclusions: Vaginal microbioma is important in the pathogenesis of CIN and cervical cancer. Beyond a proper diagnosis and treatment of associated cervical and vaginal infections, an important role for prevention is outlined (modulation of the microbiome with pre and probiotics).

(ID 119) Guidelines in plastic surgery after massive weight loss

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Introduction: Obesity represents a complex chronic illness and the person that seeks surgical treatment (gastroplasty) becomes a patient with great nutritional deficits and a significant medical history for other illnesses such as diabetes, pulmonary and cardiovascular disease. Taking into account all these risk factors and also the biological fragility of the postbariatric patient, a very thorough therapeutic plan must be conceived and a careful surgical indication is in order.

The working hypothesis and work order: During body lift surgery, attention may direct to more than one body part (arms, chest, breast, back, abdomen and thighs). These can be performed as a single stage total body lift or as multiple-stage „smaller" surgeries. Relatively healthy patients can be operated on in one stage total body lift procedure by a team experienced in body contouring surgery. This approach lowers costs, reduces operating time and decreases the number of general anesthesia inductions. On the other hand, performing a body lift in two or three stages exposes the patient to shorter surgical procedures and decreases overall blood loss.

Materials and methods: A total of 45 patients aged 18-63, that lost between 20-105 kg and required one or several body contour surgeries were operated on in the last 5 years. We tried to analyze the quality of the results, depending on the surgical method chosen.

Results: The results were good and very good, but they depend on many other factors: the amount of skin excess, patient age, sequence of interventions, patient cooperation, etc.

Conclusions: Surgery is both an art and a science. Anatomic deformities seen in massive weight loss people span a wide spectrum of presentations, depending on skin quality, skin excess, lipodistrophy, and skinfolds with local fat deposits, as well as the patient's medical landscape. This high variability makes it extremely difficult or even impossible to achieve exact protocols that can standardize these types of surgeries.

(ID 121) Tenolysis following injury of digital flexor tendons, a case report

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Objectives: Our main objective is to provide a comprehensive and systematic approach of flexor tendon injuries in zones 1 and 2 followed by tenolysis, based on a case taken from our surgical practice.

Methods: We chose to present a case report of a 46 year old man who sustained a volar laceration over his left index, middle finger and over the proximal phalanx of his ring finger. In the case presented, our patient was found to have complete transection of the flexor digitorum superficialis and flexor digitorum profundus tendons. Primary repair of the flexor digitorum profundus and excision of the flexor digitorum superficialis was performed. Range of motion deficits persisted despite quality rehabilitation and therefore flexor tenolysis was proposed.

Results: This case report examines the flexor tendons of the hand and describes two different zones of injury, surgical repair, their regeneration and post-operative management. Adhesions, produced as part of the normal inflammatory process and their inhibitory effect on tendon function are also outlined.

Conclusion: Properly gliding flexor tendons is mandatory for normal functioning of the finger and thumb. Any damage to tendons or adjacent tissue can lead to the formation of adhesions that inhibit the normal range of motion. The adhesions are part of the regenerative process and could lead to disabilities following the organic response of the tendon to injury. Post-operative management has a significant bearing on the outcome of flexor tendon injuries. Rehabilitation must balance between protection of the repair from extreme forces and prevention of adhesions. If adhesions limit the digital function and adequate hand therapy does not provide further improvement, then surgical intervention should be considered. Although the concept of tenolysis was envisioned more than 60 years ago and its efficacy originally rose questions, it is now considered a procedure with valuable clinical effectiveness in the restoration and enhancement of digital function.

(ID 122) The use of computed tomography-based virtual colonoscopy in preoperative assessment for colorectal surgery for deep infiltrative endometriosis

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Introduction: Deep infiltrating endometriosis is defined as the presence of endometrial implants, fibrosis and muscular hyperplasia extending into the retroperitoneal space or into pelvic organ walls, penetrating more than 5 mm from the peritoneal surface. Colorectal endometriosis is one of the most severe forms of the disease. Until now, studies comparing different techniques have shown that trans-vaginal and trans-rectal ultrasound and Magnetic Resonance Imaging (MRI) have comparable values in the detection of endometriotic nodules.

Study objective: To determine the accuracy of Computed Tomography-Based Virtual Colonoscopy (CTC) in the preoperative evaluation for laparoscopic surgery.

Methods: The present study analyzed data prospectively recorded from June 2015 to May 2016 and included women with planned surgery for deep endometriosis infiltrating the rectum or the sigmoid colon. The pre-operative assessment included MRI and CTC exams. To establish the correlation between preoperative and intraoperative findings, the concordance kappa index was used. Women were included in the CIRENDO database (the North-West Inter Regional Female Cohort for Patients with Endometriosis).

Measurements and Main Results: Among the 71 women enrolled in this study, preoperative CTC revealed 52 rectal nodules (78.8%), 24 sigmoid nodules (96.0%), 5 ileum nodules and 4 caecum nodules. Two thirds of the patients (47 out of 71) presented endometriotic lesions involving only the rectum, 10 patients had both sigmoid and rectal involvement, 5 patients had only sigmoid involvement and 9 patients had concomitant cecal and ileal lesions. The average height of rectal nodules provided by CTC was significantly different from those measured intraoperatively. Concordance between intraoperative and preoperative findings provided by CTC regarding the presence of rectal nodules was high. CTC was effective for establishing the degree of stenosis for rectal nodules.

Conclusion: CTC is a valuable tool in preoperative evaluation and should be systematically performed when planning laparoscopic surgery for colorectal endometriosis.

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(ID 134) A rare case of cardiac conotruncal malformation – diagnostic dilemma

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Introduction: Conotruncal malformations include a wide variety of anomalies such as: Tetralogy of Fallot, Transposition of great arteries, Double outlet right ventricle (DORV) and Common arterial trunk. Among them, one of the rarest is DORV, representing about 1% of all congenital heart defects. This malformation is characterized by the fact that both the aorta and the pulmonary artery arise mainly from the morphologic right ventricle.

Case report: A 25 weeks pregnant woman, presented to the hospital for a suspicion of cardiac anomaly. At the ultrasound scan, multiple heart anomalies were confirmed: membranous ventricular septal defect, parallel great vessels with aorta arising from the right ventricle and overriding pulmonary artery. These findings led to the diagnosis of conotruncal malformation and a differential diagnosis was made between DORV and transposition of great arteries. In the following examinations, a discrepancy between the aorta and pulmonary artery started to appear and aortic coarctation was suspected. Also the pulmonary artery was better visualized arising mainly from the right ventricle, close to the ventricular septal defect, thus establishing the diagnostic of DORV. Though its condition was not critical immediately after birth, the newborn died before cardiac surgery could be performed.

Discussions: DORV represents a heterogeneous group of complex cardiac lesions with considerable anatomic variations that may be very difficult to characterize at the ultrasound scan. After birth the prognosis is determined by the presence or absence of outflow obstruction, the location of the ventricular septal defect in relation with the outflow tracts and other associated extracardiac malformations.

(ID 136) Are complications of severe lower leg cellulitis – a case report

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Introduction: Lower leg Cellulitis is becoming a more frequent finding with progression of other chronic pathology as diabetes and chronic kidney disease that imply immunodeficiency. The bacteria that most commonly inflict this condition are beta-hemolytic streptococci, *staphylococcus pyogenes, staphylococcus aureus* with its methicillin-resistant strains. Low bacterial concentration may lead to negative culture. Empiric antibiotherapy that covers most of the germs solves the affliction successfully. In some circumstances it can progress with complications as abscess formation, sepsis and septic shock or even gangrenous cellulitis and necrotizing fasciitis.

Case presentation: A 62-year-old female, known with type two diabetes and second grade essential hypertension, arrived in the Emergency Department with eight day old cellulitis on the right lower leg. She met the criteria for sepsis with cutaneous origin, which complicates furthermore with metabolic acidosis, acute renal failure and blood glucose level as high as 532 mg/dl. The patient was hospitalized. The intervention was temporized to first rebalance the patient, whom was in severe sepsis. Intravenous and local antibiotherapy and iterative wound dressing were performed. The surgical intervention has shown septic transformation of fascias and fusion of the infectious process to the thigh. Poor evolution indicated reintervention, incision extension towards the anterior superior illiac spine due to suppuration and excision of intern gastrocnemius, a portion of soleus and gracilis muscles and great saphenous vein because of loss of viability. Festering secretion fused on the trajectory of femural vessel towards the small basin, indicated a computerized tomography which described external posterior-iliac collection in the right pelvis. Iterative wound dressing and evacuation of the suppuration in the following 14 days solved with the closing of the defect and skin grafting. The evolution is favorable with the normalization of the modified parameters and maintained viability of the graft.

Discussions: Close clinical monitoring is essential when curing complicated skin injuries. It is a guideline for therapeutic attitude, confirming that the previous treatment was adequate for the situation or redirectioning towards more invasive procedures.

(ID 139) Endoscopic management of choledocolithiasis related to periampullary duodenal diverticula

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Background & Aims: Periampullary duodenal diverticula (PADD) implications in the pathology of biliary lithiasis is a subject still widely debated in the literature, which is why we present our experience in this regard. Our aim was to assess the outcome of therapeutic ERCP performed for bile duct stones, with respect to anatomical characteristics, especially PADD.

Method: 109 cases with PADD associated to common bile duct (CBD) stones in which ERCP was performed are analyzed. These were performed at the University Emergency Hospital Bucharest, 1st Surgery Clinic, during 2007-2015. The analysis of the results of therapy was performed in relation to the anatomical variants, patients' age, and post-procedural complications.

Results: CBP selective cannulation was possible in 103 patients (94.5%). This is potentially more difficult than usual. The changed distal track of the CBD was the main cause of failure of cannulation. This was possible in 94.5% of patients versus 97% in the general group of ERCP. The success rate of sphincterotomy was slightly lower than the general lot of ERCP (97%). Extraction of stones was managed at 89% of patients. The frequency of acute pancreatitis after ERCP was not higher than in patients without PADD.

Conclusions: ERCP is a procedure obviously more difficult in the presence PADD, due to the difficult access to the papilla, its position and the angulation of the distal CBD. The success rate of ERCP in the treatment of CBD stones remains high even associated with PADD.

(ID 141) Acute abdomen through ruptured ectopic pregnancy revealing an ovarian borderline tumor

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Introduction: Ectopic pregnancy is a serious condition; diagnostic errors can endanger the patient's life. Ovarian borderline tumors are tumors with histological and cytological features of malignancy, but without stroma invasion, that can lead to death through metastatic disease.

Material and method: We present the case of a 43-year-old patient treated between May and July 2017. At admission she presented diffuse abdominal pain and dizziness for 24 hours. Laboratory investigations had normal values; abdominal echography and computed tomography revealed a small amount of pelvic fluid. After 12 hours of conservative treatment, the patient experienced an exacerbation of abdominal pain, with hemodynamic instability, a decrease of serum Hb values to 8.6 g/dl and increased quantity of pelvic fluid on ultrasound exploration. Emergency surgery was performed. A massive haemoperitoneum through ruptured ectopic right uterine tube pregnancy was found with non-viable ovary or Fallopian tube and right anexectomy was practiced. Intraoperatively a 5 mm exophitic tumor was incidentally found on the left ovary, and excision biopsy was practiced. Postoperative evolution was uneventful.

Results: The anatomopathological examination confirmed the diagnosis of right tubular pregnancy with the rupture of the Fallopian tube wall and established the diagnosis of serous papillary borderline type left ovarian tumor. After oncology examination, the indication of total hysterectomy with left anexectomy and epiploic biopsy was established. The surgical intervention was performed a month later. The anatomopathological examination revealed benign uterine and left ovarian lesions, and the cytological examination of the peritoneal fluid collected intraoperatively did not detect malignant cells. The patient was oncologically monitored postoperatively for one year, showing no signs of tumor recurrence or metastases.

Conclusions: Ectopic pregnancy is a rare pathology with initial non-specific symptomatology and frust evolution over a variable period of time. In this case the diagnosis was delayed and the pathology was discovered by the occurrence of intraperitoneal bleeding. Intraoperative exploration of the peritoneal cavity has led to the discovery of an early-stage associated pathology, difficult to detect preoperatively, but with an unfavorable evolution potential. Due to the appropriate treatment, the patient's evolution was favorable.

(ID 142) 27 week pregnancy with renal dysplasia and oligohydramnios ends with still birth after amnioinfusion – case report

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Introduction: Oligohydramnios is a serious complication of pregnancy defined as diminished amniotic fluid volume and characterized sonographycally by amniotic fluid index (AFI) less than 5 cm. It is associated with a poor perinatal outcome and complicates 1-5% of pregnancies.

Case presentation: A 27-year-old patient G1P1 with a 27 week pregnancy diagnosed in the early second trimester with unilateral renal dysplasia, otherwise an unremarkable prenatal course, with a history of urinary tract infection with E. Coli in the first trimester and no other laboratory anomalies, presented to the emergency room complaining of reduced fetal movements and uterine contractions. Ultrasonographic examination was performed and revealed fetus in cephalic presentation with intrauterine growth restriction (4th percentile) and severe oligohydramnios (AFI=1.7 cm) with intact membranes. Additionally, Doppler assessment of the fetal vessels indicated absent end diastolic flow in the umbilical artery with a pathologic cerebroplacental ratio (0.89). It was decided to perform amnioinfusion using 250 ml saline solution to increase the amniotic fluid volume and prevent pulmonary dysplasia. During the procedure, spontaneous rupture of membranes occurred and the patient was transferred to the labor ward. After 2 hours, fetal demise was confirmed. The senior ob-gyn on call decided for termination of pregnancy by labor induction using prostaglandins (misoprostol 100 μgrams vaginally every 4 hours) and prophylactic antibiotherapy. Spontaneous abortion occurred 24 hours later without any other complications.

Discussions: The diagnosis and management of oligohydramnios are real challenges for the obstetrician due to difficulties in accurately measuring the amount of amniotic fluid and insufficient data supporting intervention in all cases of oligohydramnios. In this case, oligohydramnios was the consequence of the fetal renal dysplasia in association with intrauterine growth restriction. Further chromosome testing should have been performed, but the patient refused. Amnioinfusion is one of the few approaches that improves perinatal outcome in preterm pregnancies complicated by oligohydramnios, but with some potential adverse events such as infection, fetal death, fetal trauma and preterm premature rupture of membranes.

(ID 150) Different diagnosis between the formation abnormalities of different structures in the amniotic sac ultrasound images

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Objectives: The bands is an anomaly which appeared in fetal development, in which more tissue layers which originate from the amniotic sac, surround and squash certain fetal regions, hindering fetal growth. Structural malformations of the fetus which can appear are extremely different and depend on the time of the formation of the bands during the pregnancy. These malformations include: anomalies of the limbs, of the vertebral column, of the face, of the cranium and of the thoracic region.

Material and methods: We presents data about differential diagnosis of band-like structures that we have encountered at routine ultrasound examination of patients. By presenting examples between structures similar to bands observed during our study, we underline the necessity of an accurate differential diagnosis between them and bands.

Results: A differential diagnosis of bands is made with a range of band-like structures which are usually benign to the fetus. If during echography don't appear other abnormalities of the fetus, there's no proof that the bands has negative effects. Generally, synechia don t affect the development of the pregnancy but the big synechia can be a risk factor for the appearance of a dystopic presence or the appearance of a fetus with low weight at birth through partition of the uterine cavity. The difference between bands and synechia can be done through the fact that synechia are continuous bands which have a relationship with the uterine wall from one side to another, the majority having a present Doppler signal. The fetal anatomy is not affected, synechia not producing the same effects as the bands.

Conclusions: Early Ultrasounds scan was useful in differential diagnosis in such cases, regarding hospital days, dynamic monitoring with ultrasounds, C-section to avoid materno-fetal complications

Furthermore the accurate assessment of structures that can look similar bands but are benign is important regarding a good prognosis. The bands disappears however in 70% of the cases until the next ultrasounds because of the fetal pressure, but the amniotic band syndrome bands attaching to fetus, bands restricting motion, constriction rings, amputation defects, multiple severe anomalies.

(ID 154) Surgical strategy for lower extremity skin and soft tissue defects in children – case reports

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Objective: Skin and soft tissue defects in lower extremity are challenging clinical situations that have to be dealt with on an individual basis. Closure technique must be tailored to the wound size, location and etiology, and also to the patient's characteristics (age, other comorbidities etc.). This paper aims to emphasize clinical particularities of lower extremity wound closure in children.

Material and method: We review the clinical data, surgical strategy and operative staging, and also the postoperative outcome of three cases of children (aged between 4 and 9 years old) with skin and soft tissue defect cause by trauma and infection, operated in our department in 2017.

Results: The three patients presented with lower leg and anterior foot skin and soft tissue defects, ranging from 5 to 10 cm on the long axis, with deep involvement (including joint exposure in one of them). Etiology was traumatic in two cases, one complicated by infection due to inappropriate initial cure. In the third case, the skin defect was caused by foot cellulitis that was incised and debrided in another hospital, and was referred to us for closure of the remaining uncovered wound. The surgical approach was to use local flaps and skin grafts, alone or combined, after thorough debridement and removal of all infected and devitalized tissue, combined with systemic antibiotics. Postoperative assessment at 1-2 months showed very good graft take and convenient scar appearance, with no functional impairments and no other complications.

Conclusions: Surgical protocol for closing lower extremity skin and soft tissue defects raises technical problems, even in the young patient. However, a careful planning of closure steps and preparation of good quality underlying tissues may ensure fast and satisfactory results for the patient and his/her family, as well as for the treating physician.

(ID 163) High voltage electrical burn in a 17 years old male – case report

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Introduction: High voltage electrical burns are one of the most devastating traumas inflicted in the human body and although rarely reported, they are a major cause of mortality, morbidity and disability. They usually cause extensive injuries, involving the skin as well as deeper structures, sometimes leading to limb amputations or requiring complex surgical management in order to reconstruct the defects.

Material and method: We report a severe case of electrical burn on a 17 years 11 months old male who was admitted to our Plastic Surgery and Burns Department. The high voltage electrical energy led to an electric arc with the entry point at his left palm and two exit points at both legs, affecting 4% of the total body surface area.

Results: The initial clinical examination revealed compartment syndrome to the left forearm and full thickness burns to the proximal phalanges and fourth degree burns to both his legs, with completely exposed tibial malleoli. An emergency fasciotomy was performed over the forearm in order to reduce the intracompartmental pressure and restore perfusion to viable tissues. This was followed by excisional debridements. Due to favorable evolution, eight days after the accident, the exposed bones were covered with transposition local flaps and the forearm defect was covered with split skin graft, with good graft take, good flap healing and no need to remove distal limb segments.

Conclusions: The electric current has always been a source of danger to children, and electrical trauma causes a wide range of injuries that may have irreversible long term consequences. Hand or foot amputations from the electrical burn injuries are the most common local complications, with but early fasciotomy of the injured limb and adequate re-equilibration can manage to save the affected limbs. This case was dealt with in a particular way, trying to assure the best healing conditions for the full thickness burns and this way to rescue the distal segments.

(ID 169) Could Dexamethasone be an option in chronic subdural hematomas treatment?

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Objective: The treatment of chronic subdural hematomas (CSDH) is mainly a surgical one, consisting in evacuation of blood collection when its characteristics accomplish specific criteria which impose intervention. However, many cases are border-line, while other are limited by contraindications.

For these cases, medical treatment could be an option and many therapies were tried; among these, Dexamethasone was a subject of debate, regarding its benefits for CSHD cases.

Methods: In the present study we compared 29 patients between 18-70 years old of both gender divided into two groups: group A, comprising patients who received dexamethasone and which included 17 subjects and group B, comprising patients who didn't receive dexamethasone and which included 12 subjects. Both groups were homogenous regarding demographic characteristics of proportion of patients treated with anticoagulant. In A group, Dexamethasone was administered intravenously following the same protocol in all patients.

The patients of B group were closely monitored and treated with bed rest and fluid restoration if needed. The need of surgical intervention was assessed for both groups.

Statistical analyze was performed using Microsoft Excel; data were reported as the mean ± standard deviation (mean + SD). T test (Student) was used to compare variable in two groups. P-value <0.05 was considered statistically significant.

Results: We compared the two groups regarding the possibility to avoid surgical intervention in patients with CSDH. There is a significant difference between results in the two groups: in 47.2% of patients treated with Dexamethasone surgery was avoided, versus 20.6% in group which did not receive Dexamethasone, showing a real benefit in preventing the need of a surgical decompression ($p<0.05$).

Conclusion: Conservative treatment with dexamethasone can be a safe and efficient therapeutic option for CSDH, especially when surgical intervention could be hazardous.

(ID 171) Surgical morbidity in retroperitoneal tumor treatment

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Despite modern progress in the surgical and anesthetic retroperitoneal tumor treatment, the long-distance overall survival of the operated on patients remains disappointing. Radical surgery remains the only definite therapeutic prognostic factor. However, there are various opinions between surgeons on the extent of the radical surgery, some reference centers arguing for compartment resections. However, the morbidity rate associated with different surgical approaches is currently poorly defines, with important variations between authors. The aim of our work was to evaluate the morbidity rate associated to the surgical resection of retroperitoneal tumors from our Centre and to individualize the main factors determining it for an improved management of the patients.

Patients and methods: We performed our study on a group of 160 patients diagnosed with retroperitoneal tumors, treated in the First Clinic of Surgery, Institute of Oncology Prof. Dr. Al. Trestioreanu, Bucharest for a period of 15 years. We conducted an analysis on the therapeutic and patient-related factors that were associated to operative complications and that could be avoided in order to improve patient prognosis.

Results: Surgical morbidity associated to different types of surgical interventions on retroperitoneal tumor patients was of 35.7%. Perioperative complications were significantly associated to a lower survival of the patients. A poor preoperative overall patient general state of heath, with important comorbidities was significantly accompanied by more operative complications and a decreased overall survival. Non-radical interventions were surprisingly associated to a higher morbidity rate that radical surgery.

Conclusions: There is still a lack in the knowledge of the factors that determine the surgical morbidity associated to retroperitoneal tumor patients. Authors that advance an aggressive supra-radical surgery, such as compartment surgery, do not usually describe the morbidity and mortality rates associated to their procedures. From our study, we can consider that a detailed preoperative assessment of the patients is of capital importance in order to rule out those that are non-compatible with radical-intent surgery. Non-radical interventions should be avoided as they bring no therapeutic benefits but instead associate a high surgical morbidity rate.

(ID 172) Recurrences after retroperitoneal tumor surgery

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Retroperitoneal tumors express an unusual biological profile of aggressiveness that still evades our understanding. Although radical surgery is the only confirmed therapeutic solution for these patients but is difficult to achieve and is frequently followed by an important locoregional and distant tumor relapse rate. Despite repetitive resections of tumor recurrences, usually patients die due to the progression of these relapses that become inoperable. The aim of our work was to investigate the development of the locoregional and distant recurrences from retroperitoneal neoplasia in order to determine factors that could prevent and/or at least precociously predict them in order to establish a better therapeutic approach.

Patients and methods: We retrospectively analyzed a group of 160 patients with retroperitoneal neoplasia that have been admitted and treated in the First Clinic of Surgery, Institute of Oncology Prof. Dr. Al. Trestioreanu from Bucharest during a period of 15 years. As the follow-up period of the operated-on patients was long, we evaluated the locoregional and distant tumor recurrence rate after radical surgery and we searched for controllable therapeutic factors associated to lower tumor relapse rates.

Results: Locoregional relapse rate after radical surgery was of 39.1%. Distant recurrence rate after radical surgery of retroperitoneal tumors was of 30.4%. The most frequent locoregional recurrences appeared in liposarcoma patients that appeared to express a dedifferentiating histopathologic profile with each relapse. The first locoregional tumor recurrence was resected; however, patients eventually died of progressing inoperable relapses. Marginal resection of tumor adjacent organs was associated to higher recurrence rates.

Conclusions: The development of therapeutically uncontrollable tumor locoregional recurrences remains the main cause of death of retroperitoneal tumor patients that undergo radical surgery. As these recurrences, although more frequent in the first two years after surgery, can develop even after 15 or 20 years following surgery, a meticulous post-surgical extended follow-up becomes obligatory. Knowledge on the main factors associated to tumor recurrences, their profile of development and a good protocol to predict tumor relapse timing and localization becomes of primary importance.

(ID 173) Implications for vascular involvement in retroperitoneal tumor surgery

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Retroperitoneal neoplasias are among the most aggressive tumor types, associating a disappointing prognosis even after supraradical surgery. The main causes explaining this unsatisfactory therapeutic result are: the elusive biological behavior of these tumors that grow to reach important dimensions with the involvement of major organs and blood vessels; the difficulty of the surgical intervention in this anatomical space; the tendency of these tumors to locally recur after radical surgery. The aim of our current study was to evaluate the frequency and impact of retroperitoneal tumor vascular involvement on the therapeutic protocol, surgery results and patient postoperative prognosis.

Patients and methods: We thoroughly reviewed data of 160 patients with retroperitoneal tumors from Institute of Oncology Prof. Dr. Al. Trestioreanu from Bucharest, the First Surgical Clinic, during a period of 15 years. We analyzed the profile of retroperitoneal tumor vascular and visceral involvement in order to determine its impact on therapeutic procedures and patient prognosis.

Results: Various types of tumor vascular involvement were found in more than half of the patients (in 56, 5% of the cases). Vascular and not visceral involvement by the tumor was found to be the main significant impediment to the surgical resecability of these tumors that also associated a higher morbidity rate. However, we could remark that in the presence of tumor direct contact with a blood vessel (even if it did not invade it and histopathologic finding was R0) there was a higher local recurrence rate after radical surgery in these cases compared with tumors that were not in immediate vicinity to important blood vessels.

Conclusions: Retroperitoneal tumor vascular involvement represents one of the most fearful findings for the surgeon as it predicts a more difficult and risky procedure. From our study, we can consider that tumor vascular involvement represents the main impediment in achieving surgical radicalness and a determining factor for tumor local recurrence. Therefore, all efforts in surpassing this factor (including a better medical imaging description, experienced surgical teams provided with adequate materials for vascular reconstructions and postoperative aggressive intensive care and folow-up) should be made in order to improve the survival of these patients.

(ID 174) Benignity or malignancy in retroperitoneal space?

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Benign retroperitoneal tumors account for approximately 20% of all retroperitoneal neoplasias. However, only a few studies include in their analysis benign tumors and therefore, a detailed comparison between benign and malignant types, along with an agreed therapeutic protocol, is currently missing. The aim of our current study was to determine whether benign retroperitoneal tumors should be treated differently than the malignant forms, individualizing distinctive and common features between the two.

Patients and methods: We conducted an extensive retrospective study on a group of 160 patients with retroperitoneal neoplasia diagnosed and treated in Institute of Oncology Prof. Dr. Al. Trestioreanu from Bucharest, the First Clinic of Surgery, along a period of 15 years. Histopathologic, medical imaging and surgical data were carefully reviewed in order to determine distinctive features of development and response to treatment that should be acknowledged for benign versus malignant retroperitoneal tumors.

Results: For our group of study, 23.2% of the cases were represented by benign tumors. However, there were also an important percentage of cases of undetermined tumor type (16.1% of all cases), that was usually associated to insufficient tumor biopsy There was no significant statistical difference of surgical operability, overall survival after radical surgery or tumor aggressiveness between benign and malignant forms. For benign tumors, as well as for malignant forms, radical surgery was the main positive prognostic factor.

Conclusions: Data on benign retroperitoneal tumors are currently sparse, the majority of studies being concerned with retroperitoneal sarcomas. However, a few studies along with ours point out that in this anatomical space the term of benignity disappears, as the profile of aggressiveness, particularities of treatment and prognosis is similar to malignant forms. Due to this feature, as well as associated malignant potential, benign retroperitoneal tumors should be treated as aggressive as malignant forms, both of them expressing a fearful profile of organ and vascular involvement and important surgical morbidity.

(ID 175) A case of spontaneous intestinal hematomas

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Objectives: The aim of our case presentation is to raise awareness about the potential complications of intramural intestinal hematomas. While non-traumatic spontaneous hematomas usually reflect an underlying hematologic disease, intramural hematomas mostly result from blunt trauma. Our patient is a 40 year-old Caucasian male who came to the Emergency Room for acute abdominal pain, vomiting, flatulence and no bowel transit, these symptoms having started two weeks prior. The patient's medical history revealed no conditions, except significant congenital mental retardation.

Method: Abdominal ultrasound and CT scan showed the thickened wall of the transverse colon (up to 9 mm), as well as gastric, duodenal and small-intestine stasis, with no signs of pneumoperitoneum. The number of white blood cell (WBC) was high, 14100/mcL. The clinical and paraclinical data suggested a high intestinal obstruction and after a 4-hour intense hydroelectrolitic re-equilibration, an exploratory laparotomy with mesenteric infiltration of procaine 1% and peritoneal lavage were performed. Multiple intramural hematomas were discovered in the middle portion of the jejuno-ileum. The postoperative evolution included restoration of both bowel transit and oral alimentation. Six days later, the patient presented with acute surgical abdomen, clinical signs of peritoneal irritation and lack of bowel function. The WBC escalated to 35800/mcL, total serum proteins decreased to 4.2 g/dL and serum urea was 116 mg/dl. A second exploratory laparotomy revealed abundant purulent and faecaloid fluid in the peritoneal cavity and multiple perforations of the intramural hematomas discovered during the first surgery. Adhesiolysis, enterectomy, ileostomy and elastic abdominal belt contention (to prevent eventration) were performed. Postoperative treatment included analgesics and antibiotics. The patient developed surgical wound infections (Klebsiella, Enterococcus, Group G Beta-Hemolytic Streptococcus) which were treated according to the antibiogram.

Results: The recovery was slow, partly due to patient noncompliance.

Conclusions: Spontaneous intestinal intramural hematomas are usually a rare complication of anticoagulant therapy. Given our patient's noncompliance and unclear history, there is a possibility that the hematomas formed post-traumatically, thus raising a flag when it comes to the potential outcomes of internal injuries.

(ID 232) The application of the management protocol of invasive placenta

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The incidence of adherent placenta has known a continuous ascendant incidence in the last decades. The relation with the increasing number of births by caesareans is clear, being certified the fact that placenta increta and percreta may occur through the partial or complete dehiscence of a uterine scar, allowing this way the extravillous trophoblast direct access to the deeper myometrium, serosa, and beyond. The management of these cases is complex and crucial for a good maternal and fetal prognosis. A correct management implies prenatal care and a careful planning of birth. But how do we do when dealing with such a case in an emergency? We present the case of a 31-year-old G4P3, 37weeks 3 days' gravida which presented herself at the emergency room, accusing unsteady painful low-intensity uterine contractions and asking for a cardiologic consult. The anamnesis revealed that this pregnancy was not properly monitored by a specialist and her medical history included two deliveries by caesarean section and a known, an untreated familial hypertrophic cardiomyopathy and an ultrasound scan 36 weeks describing a single fetus with a suspected cardiac hypertrophy and a praevia, anterior inserted placenta. In this context, the suspicion of an adherent placenta was confirmed by emergency ultrasound where a mild bladder invasion was observed. Due to the possibilities offered by an emergency medical hospital complete preparation for delivery (complete blood tests, EKG, cardiologic consult, pre-anesthesia consult, informed consent, making the multidisciplinary team, adequate blood products) was possible during one hour. A successful cesarean hysterectomy was performed, with the extraction of the fetus from transverse presentation trough vertical hysterotomy and rapid closing of the uterine incision after cutting the cord. The vezicotomy for uterine catheterization and excision of invaded submucosal area and subsequent hysterectomy were uncomplicated. It was necessary to administer a single unit of blood product, and the surgery resulted in the decrease in hemoglobin by two units. Both mother and fetus presented a favorable prognosis. We present this case in the context of its complexity and the successful applied approach.

(ID 233) Obstetrician-psychologist collaboration in postpartum depression

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Introduction: According to most studies on postpartum depression, this condition may occur prior to or after parturition. The estimative prevalence varies widely according to different studies, and ranges around 10%. A series of additional factors have been identified along with the most important risk factor: stressful life events, poor social and financial support, young age, single marital status, multiparity, family history of postpartum depression or psychiatric illness, unwanted pregnancy. With the postpartum depression appear a poor nutrition and health in the offspring, an increased risk of not breastfeeding and an impaired bonding with the infant. All of mentioned above consequences can lead to marital discord, abnormal infant and child development or even infanticide and suicide.

Method: We consider that this condition in our country is underestimated and an assessment of the incidence and classification of postpartum depression cases is required. The collaboration between obstetrician and psychologist increases diagnostic accuracy for postpartum depression that is serious, prevalent, under-recognized, and treatable. In this context, we questioned 500 postpartum women and completed an additional observational form regarding emotional and psychic status and self-regard after birth.

Results: The collected data showed that weight gain in pregnancy impacts in a way superior to other factors, the development of postpartum depression, the statistical analysis of the results of the questionnaires showed that the overweight in pregnancy is a statistically significant factor.

Conclusion: Our recommendation is that postpartum women with preterm infants, or infants that require neonatal intensive care receive additional psychological counseling given the fact that prolonged hospitalization and lack of child alongside further increase the risk of developing postpartum depression.

(ID 234) Evaluation of nutritional intake and nutritional education level in pregnant woman

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Introduction: A proper intake of macronutrients and micronutrients during pregnancy is mandatory for an adequate fetal growth and development and for avoiding adverse pregnancy outcomes. The incidence of pregnancy complications (small for gestational age, large for gestational age, loss in pregnancy, diabetes, preeclampsia) is higher at the upper and lower extremes of weight gain. Food safety is equally important; foodborne illnesses can cause maternal disease as well as congenital disease, miscarriage, premature labor, and fetal death. Nutrition is a self-modifiable factor, impacting short and long term prognosis.

Aim: We consider necessary the evaluation of nutritional intake and nutritional education level of all pregnant woman by a questionnaire helping to assess the relation of nutrition in pregnancy and the related complications.

Method: The questionnaire should be administered as early as possible in pregnancy and should refer on the use of supplements, food avoidances/special diets/skipping meals, eating disorders, lack of resources for adequate nutrition, low intake of nutrient-dense foods (fruits and vegetables), high intake of added sugars and fats (fried foods, processed foods, desserts), overweight or obesity, medical history of bariatric surgery or other conditions that cause malabsorption and substance misuse. A questionnaire on food behavior in pregnancy, known bans and recommendations was given to pregnant women who presented themselves to the emergency medical hospital during two months.

Results: Our aim was to determine if the food behavior is changed based on the obstetrician's recommendations, but according to the obtained data, almost one third of the presented pregnancies were not properly monitored by a specialist and two-thirds have no education on nutrition in pregnancy. **Conclusion:** Evaluation trough this questionnaire would help to identify women with high nutrition risk and monitoring these cases by a trained specialist in maternal nutrition.

(ID 238) Bowel obstruction due to carcinoma of the splenic angle of the colon at one and three months after laparoscopic cholecystectomy

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Introduction: Laparoscopic cholecystectomy is a correct, elective method, but inefficient in this case due to late diagnosis of the splenic angle colon tumor that was found when the patient presented to the emergency department due to symptoms of bowel obstruction at 1 and 3 months after scheduled laparoscopic cholecystectomy. The deceiving symptoms, right upper quadrant pain, lithiasis of the gallbladder can shadow the diagnosis we present here: colon cancer, unseen and not palpated by laparoscopy.

Materials and methods: We present the case of two 54 and 56 year old female patients that suffered cholecystectomy 1 and 3 months prior to present in our emergency department for diffuse abdominal pain, flatulence, nausea and absence of bowel movement, with a minimum battery of tests done prior to cholecystectomy. Ultrasound findings revealed enlarged bowels with no movements and abdominal, in the case of the 56 year old patient a tumor of the splenic angle of the colon was found, X-ray revealed multiple hidro-aeric levels. Emergency surgery was performed and colostomy in the transverse colon was performed for occlusive splenic angle tumors of the colon in both cases. Left hemycolectomy was performed at a distance of 21 and 45 days after ihe initial colostomy with lateral-terminal transvers-sigmoid anastomosis. All patients underwent specific oncological treatment.

Results: the 54 year old patient presented hepatic metastasis in the VI and VIII hepatic segments on the one year follow-up CT scan. The 56 year old patient presented a parietal and liver metastasis. Pathological exam revealed adenocarcinoma Pt3pN2aMx, G2, Stage IIIB, and pT4bNoM1, G2, stage IVB.

Discussion: Splenic angle tumors, occlusive in nature, discovered in the emergency department due to sings of bowel obstruction can mimic classical symptoms of gallstomecholicand a hasty diagnosis should not be made.

Conclusions: Laparoscopic cholecystectomy, in these cases, couldn't give tangible evidence regarding the presence of colon tumors, and should be augmented by more thorough imaging findings.

(ID 247) A case of synchronous tumors: malignant melanoma, hepatocellular carcinoma

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Introduction: Malignant melanoma (MM) is an aggressive type of cancer that has higher morbidity and mortality, resulting in approximately 65% of all skin cancer deaths. Early detection of MM plays a critical role in increasing cancer survival rates by recognizing patients at risk and adopting an appropriate management of the lesions, surgical excision often being curative.

Objective: The purpose of the paper is to emphasize the importance of an adequate therapeutic strategy of a second primary malignancy in a patient initially diagnosed with hepatocarcinoma and subsequently with MM.

Methods and results: We report a case of a 72-year-old male with two synchronous malignant tumors: a well-differentiated hepatocellular carcinoma (CD34+) and a 1.3/1.2/0.2 cm nodular, asymmetric, hyperpigmented and ulcerated tumor located on the posterior thoracic wall. Clinical examination showed no enlargement of cervical and axillary lymph nodes. We performed the surgical excision of the lesion and the tumoral tissue was sent to histopathological examination. Requested as an additional oncological investigation, the lymphoscintigraphy revealed a positive left axillary sentinel lymph node, therefore resection was performed. Simultaneously, we re-excised the scar respecting the oncological safety margins. The histopathological findings denoted the complete ablation of an invasive nodular melanoma pT2b with negative margins (R0) associated with a dysplastic nevus and no tumoral metastasis in the removed lymph node. Three weeks later he was diagnosed with intrahepatic recurrence of carcinoma, excisional and radiofrequency ablation procedures being performed subsequently.

Conclusions: With early and appropriate diagnosis, the treatment of most melanomas usually consists of oncological removal of the tumor.

Melanomas more commonly metastasize to local draining lymph nodes, the status of the sentinel node provides prognostic value and accurately identifies micrometastases. Although MM can metastasize in distant sites, latest findings showed the presence of liver tumor recurrence, not a melanoma metastasis, indeed two synchronous malignant tumors.