

New Series, Volume 52, Supplement 1, October 2017

ARCHIVES
OF THE

BALKAN
MEDICAL
UNION

**The 21st Session of the
Balkan Medical Days**

06-08 October 2017
Sofia, Bulgaria



www.umbalk.org

The Official Journal of the Balkan Medical Union
Founded in 1963 as: *Archives de L'Union Médicale Balkanique*

ISSN 1584-9244 (print), 2558-815X (online)



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The 21st Session of the Balkan Medical Days
06-08 October 2017, Sofia, Bulgaria



ABSTRACTS BOOK

The 21st Session of the Balkan Medical Days

06-08 October 2017, Sofia, Bulgaria



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Dear Colleagues,

It is our honour and pleasure to welcome you at the 21st SESSION OF THE BALKAN MEDICAL DAYS in Sofia, organized by the Bulgarian Section of the Balkan Medical Union, the Medical Universities of Sofia, Pleven, Varna, St. Zagora and Plovdiv, the Military Medical Academy and the Bulgarian Academy of Science.

The theme of the venue this year is **HEALTH AND LONGEVITY OF THE BALKAN POPULATIONS.**

This event is an unique occasion to gather physicians and medical specialists from the Balkan countries, representatives of the Medical Academy of France, Balkan professionals in military medicine, researchers and specialists from the pharmaceutical industry, representatives of the health systems, united by the aim to discuss the different aspects of health and longevity.

The scientific program will be completed by an attractive social program, that will lead to the success of this meeting.



Sincerely yours,

Prof. Latchezar Traykov, MD, PhD, DSc

Corresponding member of Bulgarian Academy of Science

Chairman of the Bulgarian Section of the Balkan Medical Union

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ORAL COMMUNICATIONS

INTERNAL MEDICINE

IM1. THE IMPACT OF FASTING AND POSTPRANDIAL BLOOD GLUCOSE INCREMENTS ON ATHEROSCLEROSIS VIA LIPID COMPOSITION AND OXIDATIVE STRESS IN PATIENTS WITH TYPE 2 DIABETES MELLITUS AND CORONARY HEART DISEASE

Djindjic B.¹, Milenkovic J.¹, Milojkovic M.¹, Stojanovic D.¹, Bojanic N.², Stojanovic M.², Mladenovic S.², Dunjic O.¹, Krstic N.³, Lazovic M.³, Bojanic V.¹

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The aim of the study. Impact of fasting and postprandial blood glucose increments on atherosclerosis through changes of apolipoproteins and oxidative stress in patients with diabetes mellitus (T2DM) and coronary heart disease (CHD) was evaluated. Methods. Ninety T2DM patients (60 with CHD and 30 without CHD) treated with metformin and/or sulphonylurea were enrolled in cross-sectional nested case-control clinical study. The areas under the six-point daily glucose curve above the fasting glucose concentrations (AUCpp) and over 5.5mmol/L (AUCbg) were calculated to determine postprandial (AUCpp) and fasting (AUCbg-AUCpp) glucose increments. Apolipoproteins AII and B (ApoAII and ApoB), serum lipids and malondialdehyde (MDA) were determined. Results: AUCbg-AUCpp 58.2 (95%CI 40.6-75.8) was higher in CHD group compared to non-CHD 36.9 (95%CI 23.5-50.2) mmol*h/L. They had similar ApoAII 1.630B±0.69 vs. 1.55B±0.55 mg/dl and ApoB 1.48B±0.48 vs. 1.43B±0.62 mg/dl (CHD vs. non-CHD). The MDA was significantly higher in CHD 16.47B±4.5 compared to non-CHD patients 13.42B±4.01 Ojmol/g plasma proteins. The values of PCO were similar in both groups as well as serum lipids (HDL, LDL, total cholesterol and tryglicerides). AUCpp positively correlates with MDA (r=0.45) and Apo B (r=0.49) in presence of CHD, AUCbg- AUCpp negatively correlate with Apo AII (r=-0.44) in absence of CHD. The analysis revealed that AUCpp over turning point of 0 mmol*h/L was associated with high MDA and Apo B in CHD. Conclusion. In T2DM patients with stable CHD, AUCpp at any point, significantly contributes to increasing of Apo B and MDA. Serum lipids did not show significant difference according to presence of CHD.

IM2. RATE OF INPATIENT ADMISSIONS IN MOLDOVIAN MYOSITIS COHORT

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The aim of the study. To estimate the rate of admission to hospital the patients with idiopathic inflammatory myopathies (IIM) in moldovian cohort. Materials and methods. We performed a cross-sectional study from January - December 2016. The patients included in the study fulfilled the Bohan and Peter criteria for IIM. Results. Thirty-four patients were enrolled in the study, of which resulted in 27 hospitalizations. The mean age at diagnosis was 44.6-14.9 years versus 52.9-

12.5 years at the time of hospitalization. Twelve (35.2%) patients were not hospitalized during last 12 months. The most common reasons for admission to hospital were recurrence of the disease - 10 (29.4%) patients, myalgia - 6 (17.6%) patients and complications (osteoporosis, avascular necrosis) in 5 (14.7%) patients. The less common causes for hospitalizations were infection and pain, both in 3 (8.8%) patients. The mean hospitalization period was 7.9 (range 4-14) days. We determined the annual rate of hospitalizations for IIM was 0.79 patients per year. The hospitalization rate in patients with disease duration less than 24 months was 0.81 versus 0.7 per year in patients with disease more than 2 years. During study period, there was no death. Conclusion. In moldovian cohort of patients with IIM, the rate of hospitalization was 0.79 patients per year, flares being the most frequent reason.

IM3. LES NEOPLASMES MALIGNES DE NOVO APRES LA TRANSPLANTATION RENALE – EXPERIENCE D’UN CENTRE DE GREFFE UNIQUE

Cakalaroski K., Popov Z., Stankov O., Ivanovski O., Petrovski D., Severova G., Ivanovski N.

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Introduction. L’incidence accrue des neoplasmes malignes (NM) est bien connue comme une complication serieuse apres la greffe d’organes. Suivant l’opinion des plusieurs auteurs, la prevalence totale des NM apres la transplantation d’un organ solide est entre 6 et 12%. L’etiopathogenese des NM dans ce cas est mal-connue, malgre que beaucoup de facteurs peuvent etre pris en consideration. Le but de cette etude est de presenter nos experiences cliniques dans le diagnostique et traitement precoce des NM apres la greffe. Patients et methodes. Dans une periode de 12 ans, 185 transplantations renales (139 partir d’un donneur vivant et 46 d’un rein de cadavre) etaient faites. Les malades etaient suivis regulierement une fois par mois la polyclinique de nephrologie/urologie pendant la periode de surveillance. Tous les malades etaient soumis un protocole d’immunosuppression quadruple sequentiel concernant des anticorps monoclonaux (IL-2R antagonistes) ou polyclonaux (ATG) comme un therapeutique d’induction. La mycophenolate mofetil et/ou AZA et PRED etaient utilises comme un traitement de maintenance. Les procedes standards chirurgicales et de preservation du greffon etaient faits chez la plupart des patients. Le temps moyen de l’ischemie froide chez les greffes partir d’un donneur vivant etait 3.6h, et chez les receveurs d’un rein cadaverique – 25.6h. A peu pres 20% des malades en notre experience, developpent des episodes d’un rejet aigue, traites avec succes usant la PRED dans une posologie eleve (“pulse therapy”). Resultats. Nous avons detecte 19 cas d’une NM (9.78%) chez 15 malades (15/185 = 7.8%; 5 femmes et 10 hommes). Tous les cas de NM etaient cliniquement et histologiquement confirmes. L’age moyen des malades et 45 ans (Extr.21-52) La plupart des NM etaient basaliomes ou des cas d’un cancer squame de la peau (10% ou 55%). Le sarcome de Kaposi etait trouve chez trois (3) malades (16.6% une forme viscerale). Un cancer du rein, un seminome, un cancer du colon, un cancer urogenital chez une femme, un plasmocytome et un sarcome retroperitoneale apres une transplantation renale incompatible au ABO systeme – on etaient detecee aussi. C’est surprenant, mais les PILD n’etaient pas observes chez aucun de nos malades. Toutes les NM etaient des tumeurs –de novo developpees 21 mois apres la chirurgie (Extr. 2-52 mois). La mortalite totale de la groupe investiguee etait 42.6%, specialement chez les cancers des organes solides. Trois des greffons etaient perdus de cause d’une reduction ou cessation de l’immunosuppression: 1. un malade frappe d’une forme viscerale du sarcome de Kaposi; 2. cancer cutane multiple et 3. plasmocytome. Nous n’avons pas aperceus aucune correlation entre l’occurrence clinique des NM apres la greffe et le type de HLA, les episodes des rejets ou les infections intercurrentes (virales, fungiques, bacteriennes). Conclusion. La prevalence

des NM posttransplantaires chez nos malades est similaire comme dans la litterature recente. La predominance des cancers cutanes est bien comprehensible ayant en esprit l'insolation du pays. L'examen minutieux clinique et un "screening" prolonge son necessaires pour une detection et traitement precoce de cette complication serieuse chez la population greffee.

IM4. SAFETY OF ANTIDIABETIC DRUGS IN PATIENTS WITH HEART FAILURE

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Worldwide, the prevalence of type 2 diabetes is increasing and diabetic patients have a high risk of heart failure. The choice of antidiabetic agents in patients with heart failure is still controversial. The safety of antidiabetic agents in patients with heart failure is unclear. Observational studies have reported different outcomes in diabetic patients with concomitant heart failure treated with different antidiabetic agents. Some studies compared 2 different antiglycemic strategies: intensive versus standard control. In general diabetic populations, reducing HbA1c reduces microvascular complications. Reducing HbA1c does not appear to reduce cardiovascular risk, unless it is implemented in the early stages of diabetes. Studies reported that, in heart failure patients, maintaining HbA1c between 7.1-7.8 is associated with the lowest risk of mortality. Different agents have been proposed for diabetes therapy in heart failure patients. Observational studies have demonstrated that heart failure patients using metformin (compared with other antidiabetic agents) have better outcomes. There is no mention in the guidelines about the use of sulphonylureas in patients with heart failure. There are no randomized trials with insulin in heart failure patients. Thiazolidinediones, according to European and American guidelines, are contraindicated in patients with heart failure NYHA class 3-4 and should be used with caution in NYHA class 1-2. GLP-1 mimetics and DPP-4 inhibitors represent the incretin system; outcomes trials for these agents are still in early stages. Cardiovascular outcomes of recent clinical trials of antihyperglycemic treatments are discordant, and rigorous appraisal of new studies is essential.

IM5. NONCEREBRAL THROMBOEMBOLIC RISK IN PAROXYSMAL NONVALVULAR ATRIAL FIBRILLATION

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The aim of the study was to assess the prevalence and the management of non-cerebral thromboembolism in paroxysmal non-valvular atrial fibrillation. Materials and methods. Search in literature of speciality, medical databases with key words paroxysmal non-valvular atrial fibrillation, non-cerebral thromboembolism. Results. Atrial fibrillation is a thrombogenic disease

and the common pathophysiological mechanism is endothelial dysfunction. Female sex, older age (more than 65 years) and comorbidities (hypertension, diabetes, cerebral arteries disease, coronary artery disease) raise the thromboembolic risk. Embolic disease in abdominal (mesenteric, splenic, renal) and limb arteries have a lower incidence in nonvalvular atrial fibrillation compared with embolic stroke. The risk of renal artery thromboembolism without embolic stroke was reported with an incidence about 0.01%. Frequently the disease remained underdiagnosed. The ischemic events have presented in the emergency department as abdominal or renal colic. The acute onset may mimic other disorders. Despite acute coronary syndrome where the thrombus is white, platelet-rich, in atrial fibrillation the thrombus is red, fibrin-rich and the anticoagulation medication is mandatory. CHA2DS2-VASc score estimates the thromboembolic risk as recommended by European Society of Cardiology guidelines. Conclusions. The management is complex, by interdisciplinary approach directed to atrial fibrillation and also to comorbidities, to minimize the systemic endothelial dysfunction.

IM6. COHEN SYNDROME: REVIEW AND INCIDENCE IN THE GREEK ISLAND THYMENA

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Cohen syndrome is a rare autosomal recessive disorder and is believed to be due to a mutation in the gene COH1, which is found in chromosome 8. The diagnosis of Cohen is based mostly on clinical examination - patients' phenotype. It is characterized by truncal obesity in the teen years, craniofacial modifications (microcephaly, micrognathia, microphthalmia etc), ocular complications (myopia, strabismus, nystagmus, progressive retinchoroidal dystrophy etc), psychomotor retardation and neutropenia with recurrent infections. Cohen syndrome is mostly found in small area populations and it has been diagnosed in fewer than 300 people worldwide. It is very interesting that many of the diagnosed cases are found in a small Greek island with only 136 habitants, in Thymena of Fournoi (Municipality of Samos). Many studies have been performed in Thymena to understand the origin of the disorder and also to record the difficulties faced by the patients and their families, which coincides with lack of specialized care.

IM7. BALKAN ENDEMIC NEPHROPATHY: REPERCUSSIONS ON THE HEALTH AND LONGEVITY OF AFFECTED BALKAN POPULATIONS

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Balkan endemic nephropathy (BEN), originally described in the late 1950s, is a chronicfamiliar renal disease with unique epidemiological features affecting predominantly rural populations living along tributaries of the Danube River in Serbia, Bulgaria, Romania, Croatia, and Bosnia-Herzegovina. BEN presents as a tubulointerstitial kidney disease with a long incubation period. It invariably leads to end-stage renal disease and is also associated with increased incidence of upper urinary tract tumors (UUC). As its clinical signs and symptoms are not clear, various epidemiological studies conducted regarding its prevalence yielded contradictory results. Despite

broad investigations into possible genetic cause, environmental factors and involvement of immune mechanisms, the etiology of Balkan endemic nephropathy remains unclear. Various hypotheses have been put forward on the possible role of the above-mentioned factors but the similarities between the presentation of BEN and ‘Chinese herbs nephropathy’ have raised the possibility that a common etiologic factor could be the cause. Based on this observation, recent molecular studies have been undertaken, and provide strong evidence that the dominant factor underlying Balkan endemic nephropathy is likely to be chronic dietary exposure to aristolochic acid (AA), a component of a weed growing in cultivated fields of high prevalence areas and which subsequently is a contaminant of the locally consumed bread flour. Our aim is to present a review of the latest knowledge about BEN, which may contribute to measures for improved health and longevity of the Balkan populations most at risk from this devastating disease.

IM6. B SMALL CELL LYMPHOMAS AND THE ROLE OF BONE MARROW BIOPSY IN DIAGNOSIS, STAGING AND TREATMENT

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Non-Hodgkin lymphoma (NHL) is a collective term for a heterogeneous group of lymphoproliferative malignancies with differing patterns of behavior and responses to treatment. Most NHLs (80-85%) are of B-cell origin. The B-cell lymphomas are classified in two distinct biological entities, the aggressive B-cell lymphomas and the indolent lymphomas. Furthermore B-cell lymphomas tend to mimic the normal stages of differentiation of the B cell and are classified in this way. B small cell lymphomas are a subgroup of NHLs that include chronic lymphocytic leukemia/ small lymphocytic lymphoma, mantle cell lymphoma, follicular lymphoma, marginal zone lymphoma and lymphoplasmacytic lymphoma. In addition to a diagnostic biopsy, almost all patients should have a bone marrow aspirate and biopsy performed. The morphofunctional approach along with modern techniques such as immunohistochemistry is of great value in definitive diagnosis, staging and treatment.

IM7. THYROID HORMONES AND MYOCARDIAL INFARCTION: AN INTERESTING CORRELATION

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Our work deals with the correlation of thyroid hormones and tissue recovery and regeneration. Initially, we make a reference to the structure and function of thyroid hormones. Secondly, we present the laboratory findings related to the faster recovery of myocardial tissue in people who have suffered myocardial infarction and treated as part with thyroid hormones. We also highlight the role of thyroid hormones in the genetic reprogramming process, carried out in amphibians in

order to facilitate environmental adaptation. Features here emphasize as example reprogramming induced by the T3 transformation genes tadpole to frog. Finally, we talk about the contribution of thyroid hormones to the neuronal restoration, axon's reconfiguration and remyelination within the treatment of neurodegenerative diseases.

IM10. VARICELLA ZOSTER VIRUS IN IMMUNOSUPPRESSED PATIENTS

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The Varicella Zoster Virus (VZV) is a neurotropic virus and the cause of Chickenpox and Herpes Zoster. Chickenpox follows initial exposure to the virus and is typically a relatively mild, self-limited childhood illness with a characteristic exanthema, while reactivation of the dormant virus results in the characteristic painful dermatomal rash of herpes zoster, which is often followed by pain in the distribution of the rash. To immunosufficient patients this disease presents a mere irritation, however this is not the case in immunosuppressed individuals. The incidence of Herpes Zoster is fifteen times greater among the immunocompromised in comparison with the immunosufficient. Herpes Zoster is especially common in HIV patients and can be found at any stage of the infection, but the incidence is higher when the CD4 count is below 200. In addition, this group of patients is in danger of widespread skin and systemic involvement, as well as, and has a higher recurrence rate. The symptoms begin with a prodromal illness of pain and paresthesias with dermatomal distribution. Moreover, erythematous macules and papules develop and progress to vesicles within 24 hours. The vesicles may crust, but new lesions usually appear within 7 to 10 days. VZV immunosuppressed patients should be hospitalized and treated with antiviral drugs, so as to avoid severe complications. The diagnosis is usually clinical, but VZV may present itself with an atypical image. In this case immunofluorescence techniques can be used to identify the viral antigen.

IM11. CUTANEOUS MANIFESTATIONS OF LUPUS ERYTHEMATOSUS

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Lupus erythematosus is an autoimmune connective tissue disorder that can affect one or several organs. Circulating autoantibodies and immune complexes are due to loss of normal immune

tolerance and are pathogenic. Clinical features of LE are highly variable. LE nearly always affects the skin to some degree. It may manifest as systemic disease, which is the Systemic Lupus Erythematosus (SLE), or in a purely cutaneous form which is the Cutaneous Lupus Erythematosus (CLE). About 80% of patients with SLE have skin involvement and it is the first sign of SLE in about one quarter of them. It can present with lupus erythematosus-specific or -nonspecific manifestations. Lupus erythematosus-specific skin lesions tend to be induced or aggravated by exposure to ultraviolet radiation and are localised in sun-exposed sites. CLE is classified as acute, subacute, intermittent and chronic. Typically, SLE presents with acute CLE which can be localized or generalised. About half of patients with subacute CLE develop mild SLE but only 5% of patients with chronic CLE develop SLE, therefore these are usually skin problems without involvement of other organs. On the other hand nonspecific cutaneous SLE refers to features relating to underlying illness and may occur in other autoimmune or connective tissue diseases as well.

NEURO SCIENCES

N1. FREQUENCY OF DISTRIBUTION AND CLINICAL FORMS OF CEREBROVASCULAR DISEASES IN STARA ZAGORA REGION

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Aim of the study. The aim of the study is to conduct a population-epidemiological investigation of cerebrovascular diseases and the features of their clinical course in the Stara Zagora region. A clinical epidemiological study in an area comprising a population of 148 103 people – 72 724 men and 75 379 women, aged between 50 and 80, randomly selected, was carried out. 521 patients were included in the study in a random way. 421 of them had ischemic stroke, 83 were diagnosed with cerebral haemorrhage, while 17 suffered from subarachnoid haemorrhage. Well-documented and less well-documented ischemic stroke risk factors were studied, as well as the risk factors for cerebral and subarachnoid haemorrhages. **Materials and methods.** Object of observation was a population in the region of 148 103 individuals aged 50-80 years, randomized, of which 421 were ischemic stroke, 83 with cerebral haemorrhage, and 17 with subarachnoid haemorrhage. The patients were diagnosed using a modified card for screening for cerebrovascular risk (ASPS), CT of the brain, ECG and biochemical blood tests. **Results.** It was found that cerebral infarctions had the highest incidence, followed cerebral and subarachnoid haemorrhages. Ischemic strokes localized in the left middle cerebral artery prevailed for both genders in the sub-group of patients with ischemic stroke. In contrast, cerebral haemorrhages were more frequently observed in the right hemisphere of the brain and had higher incidence in women. Hypertension and cardiovascular diseases were the most frequent well-documented cerebrovascular disease risk factors. Hyperlipidaemia was among the less well-documented risk factors. The main risk factor in patients with cerebral and subarachnoid haemorrhages was untreated hypertension, followed by vascular anomalies. The computed tomography test showed a high degree of informativeness in all groups studied. **Conclusion.** Our study shows, that the applied diagnostic algorithm can be used in clinical practice as a modern diagnostic approach to cerebrovascular disease and its risk factors.

N2. TRANSCRANIAL DOPPLER SONOGRAPHY IN POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME

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Aim of the study. Posterior Reversible Encephalopathy Syndrome (PRES) is a rare clinico-radiological syndrome with heterogenous etiology, typical neurological presentation and specific neuroimaging findings including vasogenic oedema within the occipital and parietal regions. The pathophysiological mechanisms remain controversial, but the most probable include breakdown of brain blood flow and endothelial dysfunction. We present a case report of two patients with PRES. **Materials and methods.** The first patient is a 13-year-old girl with Relapsed Acute lymphoblastic leukemia without CNS involvement during the period of postchemotherapy cytopenia. The last chemotherapy regimen included high doses Dexamethason, Vincristine, high

doses Methotrexate, high doses Cytarabine, Cyclophosphamide. Two different neurological complications were registered – severe chemotherapy-induced peripheral neuropathy and PRES, presented with partial motor seizures, followed by secondarily generalized tonic-clonic seizures and convulsive status epilepticus. Computed tomography demonstrated two symmetrical bilateral occipital hypodense lesions. The treatment included *antiedematous* and antiepileptic (Thiopental, Sodium Valproate) therapy. No more epileptic seizures were observed. The second patient is a 30-year-old woman with rapidly progressive nephritic syndrome with renal failure requiring hemodialysis and high blood pressure (up to 200/100 mmHg). The clinical manifestations of PRES were *visual* disturbances - acute bilateral loss of vision. The magnetic resonance imaging findings were bilateral oedema in the occipital, temporal and parietal lobes. Magnetic resonance angiography showed no abnormalities. Transcranial color-coded duplex sonography revealed mild vasospasm of both middle and posterior cerebral arteries. Clinical improvement with complete resolution of *visual* disturbances was observed within several days. Conclusion. Clinical presentation and etiology of PRES in our patients are different. Our neurosonologic observations demonstrate that vasoconstriction is not the main key factor. Despite severity of the symptoms prognosis of this neurological complication is relatively good.

N3. NEUROPSYCHOLOGICAL EFFECTS OF COMORBIDITY IN MULTIPLE SCLEROSIS PATIENTS

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The objective was to study the influence of multiple sclerosis (MS) on the neuropsychological characteristics of hospitalized patients with or without accompanying diseases. Materials and methods. The individual quality of life of 80 MS patients, 56 females and 24 males, at a mean age of 49 years, EDSS score of 2.0 to 2.5, was examined by means of Multiple Sclerosis Quality of Life-54 Questionnaire (MSQOL-54). Results: 67 patients presented with at least one accompanying disease. There were substantial differences between MS patients without and with comorbidity, concerning most MSQOL-54 scores. Comorbidity additionally worsened mental concentration and thinking, attention, memory capacity, and coping with everyday activities. Conclusion. Common comorbidity in MS patients requires careful clinical examination and proper management in order to reduce neuropsychological burden and ensure better quality of life.

N4. CORTICAL AND WHITE MATTER LESIONS LEAD TO DISTINCT COGNITIVE DYSFUNCTION PATTERNS IN MULTIPLE SCLEROSIS

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The aim of the study. Research in the last several years links cortical lesions with the pathogenesis of cognitive impairment in multiple sclerosis (MS). Their impact on physical disability and evolution of the disease to a secondary progressive phase is yet to be explored. We aimed to investigate the role of three distinct types of imaging pathology in the generation of cognitive

dysfunction in patients with MS cortical lesions, white matter lesions and cortical atrophy. Materials and methods. Fifteen patients with MS underwent clinical, detailed neuropsychological and neuroimaging examination. We performed a 3 Tesla magnetic resonance imaging with three dimensional double inversion recovery in the sagittal plane added to the standard protocol. The images were reviewed and compared by two radiologists. Lesions were divided into 6 groups and the stage of cortical atrophy was assessed on a scale of 0-4. Results. Cortical lesions correlated with some cognitive scores including Mini-MentalState ($p<0.05$), information processing, measured by Symbol Digit Modalities Test($p=0.05$) and verbal fluency ($p<0.05$). White matter lesion load correlated with executive functioning, measured by the number of hits ($p=0.001$) and omissions($p<0.05$) in the Paced Auditory Serial Addition Test and reached near statistical significance for recognition in the Free and Cued Selective Reminding Test ($p=0.06$). Cortical lesion pathology positively correlated with the severity of cortical atrophy ($p=0.05$) and periventricular white matter lesion load ($p<0.05$). Physical disability, measured by the Expanded Disability Status Scale, correlated with cortical atrophy ($p<0.05$). Conclusion. Specific tests measuring executive dysfunction may correspond to the different types of imaging pathology and their underlying pathogenic processes. Our results show that cortical lesion pathology is one of the most sensitive imaging correlates of cognitive dysfunction in MS.

N5. POLY-UNSATURATED FATTY ACIDS AND ASPIRIN AS MODIFIERS IN CENTRAL NERVOUS SYSTEM MORBIDITIES

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Aim of the study. Polyunsaturated fatty acids (PUFAs) and their metabolites, regulate various cellular signaling processes and play a crucial role in inflammatory processes by releasing pro- and anti-inflammatory molecules termed oxylipins. In the brain, aspirin not only reduces the risk of stroke with its antiplatelet activity, but in combination with PUFAs has other beneficial effects that might reduce the risk of diseases: of aging, impaired memory and Alzheimer's disease, multiple sclerosis, autism spectrum disorder, schizophrenia, depression, sepsis, traumatic brain injury, and ischemic stroke. There are different mechanisms that include inhibition of synthesis of pro-inflammatory eicosanoids TXA₂ and PGE₂ LT B₄ and C₄, as well as increased synthesis of aspirin triggered anti-inflammatory resolvins and protectins (neuroprotectins) and epi-lipoxins which are powerful lipid mediators. The aim of this study is to examine the synergistic effects of Aspirin and PUFAs in different central nervous system morbidities. Materials and Methods. For the goal of this study have been used mainly the database of PubMed Central® (PMC). The database was searched with key words such as “aspirin” “PUFA” “oxylipins” “lipoxins” “resolvins” “protectins” “brain” “cerebral” “inflammation”. Results. There is evidence, that Aspirin triggered molecules – lipoxins, resolvins, protectins are generated within neural tissue. The combination of PUFA and aspirin modulates activation of microglia, as well as neuronal functions involving brain-derived neurotrophic factor (BDNF). Their actions enhance the antioxidative capacity of microglial cells and may protect against neurodegenerative diseases with an inflammatory etiology. Epi-lipoxins enhance the phagocytic ability of microglial cells in Alzheimer's disease and are also neuroprotective in middle cerebral occlusion animal models and reduce the blood–brain barrier breakdown and lesion volume in traumatic brain. The ability of PUFAs and LXA₄ to enhance NO generation that functions as a neurotransmitter can be

positively correlated with improved cognition and memory performance of both animals and humans. Aspirin-triggered neuroprotectin D1 attenuates cerebral ischemic injury after experimental stroke. Both the 17R and 17S D series resolvins exhibit potent anti-inflammatory action in vivo, resolvin D1 is generated in response to brain ischemia-reperfusion. Conclusion. PUFAs mainly eicosapentaenoic acid (EPA), Docosahexaenoic acid (DHA) and their derivatives have neuroprotective effects and may be useful in the treatment and prevention of neuronal degenerative and other neurological conditions. What is less certain is whether consumption of PUFA is important in maintaining brain health throughout one's life span. Aspirin in combination with PUFA may increase their neuroprotective effects in the treatment and prevention of different central nervous system morbidities.

N6. THE IMPACT OF ANTICHOLINERGIC MEDICATIONS ON AGING BRAIN

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Aim of study. Alzheimer's disease (AD) is associated with disturbance of cholinergic neurotransmission, memory and irreversible impairment of cognitive function. Increasing longevity will inevitably lead to an increase in the number of patients with AD, the prevalence of which increases markedly with age. Dealing with AD has great impact on families affecting the quality of life of the patients and their caregivers. The study provides the result principally from human observational studies that investigate the hypothesis that there is connection of AD and use of drugs with anticholinergic effects. Materials and Methods: For the purpose of the study have been used mainly the database of PubMed Central® (PMC) a repository for journal literature and author manuscripts. The database was searched with key words such as "acetylcholine", "anticholinergics", "Alzheimer's disease" "dementia" and additional research have been done using the reference lists of the articles that have been found through the search. Results. Anticholinergic medications may affect the memory through central blockade of nicotinic and muscarinic receptors. The results reveal that many studies support the hypothesis of a connection between drugs anticholinergic effects and cognitive impairment that is reversible upon discontinuation of medications. There are different rating scales for the determination of anticholinergic burden, like Anticholinergic cognitive burden (ACB) scale, the Anticholinergic risk scale (ARS), the Anticholinergic drug scale (ADS) and also the Drug Burden Index. These studies use different rating scales and covariates; however there is general acceptance that there is a high risk for more permanent cognitive impairment even in individuals without baseline dementia. Conclusion: The anticholinergic burden of drugs is a great problem and especially in older individuals due to many factors such as normal age related pharmacokinetic changes, the polypharmacy, drugs interaction and improper drug prescription, the potency and the dose of drugs or comorbidity. Anticholinergic drugs are used for the treatment of many diseases, such as antiemetics, antispasmodics and Parkinson disease. General anaesthetics, and several drugs administered during anaesthesia, interact with the central cholinergic system too. Moreover there are other agents that have unintended anticholinergic effects, like tricyclic antidepressants, first generation antihistamines and some antipsychotics. Some drugs act on peripheral receptors but affect also central cholinergic system, leading to cognitive adverse effects. Chronic administration of anticholinergic drugs could have a great impact on neurodegeneration especially in older patients. For these reasons monitoring and screening for evidence of changes in clinical signs or

symptoms that are related with memory deficit must be performed to avoid the prolong exposure of susceptible individuals to such medications.

N7. POSTSTROKE COGNITIVE IMPAIRMENT IN BULGARIAN PATIENTS: 2-YEARS PROSPECTIVE STUDY

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The objectives of this study were to determine a quick cognitive screening test in the acute poststroke phase which can accurately predict delayed cognitive and functional decline in poststroke patients. Material and Methods: Eighty-five consecutive first-ever stroke inpatients, aged 50–80 years without previous cognitive complaints were prospectively evaluated with a comprehensive neuropsychological battery on the 5th day, 1st, 6th, 12th, and 24th month. A wide range of clinical, radiological and neuropsychological variables were examined. We composed a control group of 25 normal control subjects (NCs), matched to the patients' group according to their age and educational level. Results. Patients had significantly lower scores on all measures of verbal learning. Their performance was characterized by reduced short-term memory, slow learning and lowered level of recollection from long-term memory. The most significantly impaired were all timed on tests of executive functioning. All patients at baseline were cognitively slow, had non-effective set shifting and reduced semantic generation. Executive functioning deficit appears to have a predictive power for cognitive impairment progression. Conclusion. Our results showed that among all neuropsychological measures, only the IST test at the 2-year follow-up showed significant decline reaching the baseline level impairments in comparison with the results at 12-th month. The follow-up IST examinations was a quick, easy and reliable neuropsychological tool for delayed poststroke cognitive impairment. The findings may set the stage for better poststroke management.

N8. DEFICITS IN EMOTION PROCESSING CORRELATE WITH BEHAVIOURAL IMPAIRMENT IN PATIENTS WITH NEURODEGENERATIVE DISORDERS

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Different subtypes of frontotemporal dementia (FTD) and Alzheimer's disease (AD) share overlapping features causing difficulties in early stage differential diagnosis. New assessment

tools are needed to improve early diagnosis of these conditions. We aimed to assess emotion categorisation and behavioural changes and in FTD subtypes and non-amnesic AD patients compared with healthy controls. Twenty four subjects with behavioural variant FTD (bv-FTD), 11 nonfluent primary progressive aphasia subjects (nf-PPA), 10 semantic dementia (SD) subjects, 13 non-amnesic AD individuals, 6 individuals with corticobasal syndrome (CBS), and 19 age, gender, and education-matched healthy controls with normal cognitive functioning were studied. The subjects were diagnosed according to the latest published criteria. The behaviour of all patients was evaluated via Frontal Behavioural Inventory (FBI), a quantitative caregiver-based scale designed to probe the core behavioural features of FTD. We assessed the facial expression recognition of six basic emotions (anger, disgust, fear, sadness, surprise, and happiness) and a neutral expression, using 48 photographs of faces from the NimStim Face stimulus set. Subjects had first to determine the emotional valence of the face (positive, negative or neutral). If the stimulus was not neutral, the participants had to further define the emotion using one of the six basic emotion categories. Behavioural assessment with FBI showed marked differences between the patient groups. Patients with bv-FTD were the most impaired, followed by those with SD, non-amnesic AD, and nf-PPA groups. A very similar trend was present in the performance of the emotional valence task where bv-FTD patients had the most noticeable deficit, and nf-PPA patients performed normally. Additionally, neutral stimuli showed the strongest discriminating role in bv-FTD in comparison with other groups. Moreover the performance for neutral stimuli correlated moderately with behavioural change. In conclusion, we suggest that performance on emotion processing tasks combined with behavioural assessment may provide a useful clinical tool in differential diagnosis of non-amnesic AD and FTD subtypes.

N9. CLINICAL PRESENTATION AND CSF BIOMARKERS OF A PATIENT WITH BETA-PROPELLER PROTEIN-ASSOCIATED NEURODEGENERATION: THE FIRST PROVEN CASE FROM BULGARIA

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Beta-propeller protein-associated neurodegeneration (BPAN) is a recently identified subtype of neurodegeneration with brain iron accumulation (NBIA), being unique with respect to the underlying disease genetics, the associated clinical presentation, and the suggested pathomechanism. A neuropathological examination with widespread tau pathology in this disease indicated that this should be considered as a tauopathy. This study describes the clinical, neuropsychological and neuroimaging features of a BPAN case in a 40-year-old female. Cerebrospinal fluid (CSF) amyloid and tau biomarkers were examined. The diagnosis of BPAN was established by identifying a WDR45 pathogenic variant on molecular genetic testing. She presented with BPAN's particular biphasic course of neurological symptoms. From early childhood, she was recognized as having developmental delay and subsequently demonstrated neurodegeneration with progressive parkinsonian syndrome, dystonia and dementia in her third decade. At the age of 40 years, she had severe dementia, associated with severe apraxia, behavior changes and extrapyramidal symptoms. Brain imaging revealed brain atrophy, more pronounced in frontal lobes and bilateral mineralisation of the globus pallidus and substantia nigra. The results of CSF biomarkers showed abnormally low CSF A β 42 level and abnormally high CSF tau

level. In conclusion, this is the first genetically proven BPAN case from Bulgaria. Although the characteristic features of BPAN were present in our patient, the observation of Alzheimer-type CSF changes was considered as an interesting finding. More research is needed to explore the disease pathogenesis.

N10. STROKE SCALES IN EVALUATION AND REGOGNITION OF STROKE

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The aim of study. To identify and compare the predictive power of prehospital stroke scales in the early identification of stroke patients. Materials and methods. We studied the performance of prehospital stroke scales (Cincinnati Prehospital Stroke Scale, Los Angeles Prehospital Stroke Scree, Face Arm Speech Test) and ED stroke scales (Recognition of Stroke in the Emergency Room Scale and National Institute of Health Stroke Scales) in the early identification of stroke patients, and compared them statistically. Results: A total of 1,983 patients with ischemic stroke were evaluated in our study. The most affected categories of age being 60-69 years (33.1%). Emergency prehospital personnel stroke diagnosis was correct in 77.2% of stroke patients who were initially evaluated by them. There was no difference in the proportion of strokes correctly detected by the CPSS, LAPSS or FAST. The ROSIER scale for stroke diagnosis gave a sensitivity of 89%. The NIHSS is a useful and rapid tool to confirm the diagnosis of stroke, localize the stroke lesion, identify the culprit vessel and provide early prognosis. Conclusion: Our findings showed that the medical dispatchers and the prehospital emergency medical personnel could efficiently use the FAST, LAPSS and CPSS as a screening tools for early identification of stroke patients. Prehospital scales varied in their accuracy and missed up to 22.8 % of acute strokes. The ROSIER and NIHSS were effective for emergency medical personal of the ED.

N11. NEUROIMAGING MARKERS FOR VASCULAR DEMENTIA AFTER ISCHEMIC STROKE

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The objectives of this study are to evaluate the delayed changes in cognition in poststroke patients and their relationship to the neuroimaging markers measured during the acute poststroke phase. Methods: Eighty-five first-ever stroke inpatients (average age 65.6 ± 5.6) without previous cognitive complaints were prospectively assessed with a comprehensive neuropsychological battery at 5th day, 1st, 6th, 12th, and 24th month. Results: A noncontrast CT brain scan examination was carried out for all patients on admission to the hospital and for 22 patients at the 24th month. Changes in the basal ganglia lesions, deep white matter and hippocampal (medial temporal lobe - MTL) atrophy were tested and examined. The results clearly showed hippocampal atrophy as a very stable predictor of cognitive impairment in almost all measures. Basal ganglia lesions were important for executive dysfunction and attention. On the other hand, MTL atrophy showed high impact on the performance during attention/executive tests, even 2 years after stroke.

In addition, the MTL atrophy increased significantly in that time compared with the baseline. Conclusion: Cognitive impairments are common after stroke. These results underlined the important role of the initial assessment of medial temporal lobe atrophy. In our study the hippocampal atrophy is the strongest predictor of cognitive impairment and dementia outcome, even in poststroke patients.

N12. EARLY VASCULAR AGING AND MILD COGNITIVE IMPAIRMENT

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The objective of the study. To find whether tissue markers for early vascular aging that are measurable in the everyday practice are correlated with Mild Cognitive Impairment (MCI) and can be used as screening tools in elderly hypertensive patients. Materials and methods. This is a prospective study of 269 hypertensive patients: 180 (66.91%) females and 89 (33.08%) males. Mean age 67.53 ± 8.99 years. Full medical history, physical examination, Echocardiography, blood pressure measurement – home, office and ambulatory were made. 70 of the patients had central aortic pressure, ankle-brachial index and IMT measured. The neuropsychological tests applied were: Mini Mental State Examination and Montreal Cognitive Assessment. We also assessed total cardiovascular risk with SCORE, used Geriatric Depression Scale and The Four Instrumental Activities of Daily Living Score. SPSS 19 was used for the statistical analysis. Results: Central aortic as well as peripheral pulse pressure, home measured systolic blood pressure and IMT were significantly higher in patients with MCI ($p < 0.05$). Pearson analysis confirmed a mild to moderate negative correlation between IMT and neuropsychological tests' results ($p < 0.05$). Conclusion: Cognitive impairment in hypertensive patients with concomitant cardiovascular risk factors can be viewed as consequence and of manifestation of early vascular aging.

PHARMACY AND PHARMACOLOGY

PP1. ON ANOLOGY: FROM THEOPHRASTOS (c. 371 – c. 287 BC) TO ALEXANDRE MIKHAILOVICH BESREDKA (1870 – 1940)

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Theóphrastos was a Greek native of Eresos in Lesbos Island and was the successor to Aristotle at the informal institution whose members conducted philosophical and scientific inquiries, worldwide known as the Peripatetic School. Initially, he studied in Plato's school in Athens. After Plato's death, he attached himself to Aristotle and when the latter fled Athens, he assumed responsibility of the Lyceum. Theophrastus is often considered the "father of botany" due to his scientific contribution on the flora. Among the works of Theophrastus, his views on immunology are clearly distinguishable. These innovative perceptions highlight the ability of the human body to develop a habitual immune mood against the drugs that are gradually delivered. Consequently, Theóphrastos predicts the phenomenon of Mithradates as a method of immune status. In particular, Theóphrastos emphasizes that a number of drug substances due to addiction are weakened and no longer have any beneficial effect. Regarding Alexandre Mikhailovich Besredka (1870 – 1940), he was a biologist and immunologist born in Odessa. In 1910, as he became a French citizen, Besredka went to Paris (Pasteur Institute) where he was an assistant to Ilya Ilyich Metchnikov. Alexandre Besredka specialized in the research of phagocytosis, immunology and cellular self-defense mechanisms, in anaphylaxis etc. His name is associated with "Besredka's method", a type of vaccination for avoiding anaphylactic shock in the usage of serotherapy which is occasionally referred to as "Besredka's desensitization".

PP2. SOCIAL SIGNIFICANCE OF THE HEALTH INSURANCE MODEL IN BULGARIA

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Scarce resources in the public sector, population aging and low economic growth in many EU countries draw public attention to the efficiency and effectiveness of the public sector, in particular healthcare. This raises serious demand for appropriate methods and techniques for analyzing the volume and cost structure of healthcare, and the effects of one or another cost policy in the sector. The aim of the present study is to establish the social significance of the health insurance model in Bulgaria. In relation to the set objectives of the survey, the analyzed sample is formed on the principle of the respondents of a certain category - 100 health insured persons. Respondents - the subject of the survey are representatives of the cities of Sofia, Plovdiv, Varna, Bourgas. The survey was conducted between May and September 2016. The methodology used were questionnaire, mathematical-statistical and graphic methods. The results achieved provide a clear indication of the impact of the nation's health status on overall economic

performance and the well-being of the population. Finally, it should be noted that a high degree of satisfaction with the compulsory health insurance services has been established, but the share of respondents who have expressed their willingness to provide health insurance and additional is significant.

PP3. GREAT ROMANIAN EXPERIENCES IN VACCINOLOGY

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After implementing the Daniello-Pușcariu Romanian method of antirabic vaccination (serovaccination) (1887) a golden medal rewarded (Athens, 1904), Romanian bacteriologists obtained remarkable successes during the Second Balkan War and World War I. Medico-historical documents provide data on the 1913 lifethreatening cholera epidemic that ravaged Bulgaria and affected Romanian soldiers. Concepts regarding vibrio cholerae cycle and toxin, cellular and humoral immunity confronted each other. Vaccination in epidemic environment during the negative phase was not recommended, because organisms to be vaccinated show higher sensitivity and diminished reactivity. Besides cholera vaccinations Ferran performed in Spain (1885), and Haffkin in India (1893-1896) had been inconclusive. Facing rapidly disseminating cholera in the Balkans, Professor Ioan Cantacuzino and coworkers applied strict individual and collective hygiene rules, illustrating Pettenkofer's principles validity. Concurrently, Romanian soldiers were vaccinated in the epidemic focus, at Orhan (Bulgaria). Each valid person received three increasing doses of polyvalent vaccines at six day intervals. Vaccines prepared in Cantacuzino's Laboratory in Bucharest used emulsions of bacterial strains harvested in the outbreak area, heated at 55B°-56B°C, a low temperature preserving vibrios chemical structure. Cantacuzino's courageous decision paid off. Bezredka called this victory the great Romanian experience. It was a cohort experiment, based on Cantacuzino's prior studies on cholera, allowing this famous Romanian immunologist of Balkan descent to assume reasonable risks. Vaccination was differently understood afterwards. During World War I Cantacuzino benefited from this anti-cholera campaign expertise and brilliantly fought the disease again. Nowadays new experiences and challenges arise. Vaccines safety, efficiency, opportunity, availability and marketing await solutions.

PP4. THE DISTINGUISHED AND ECCENTRIC PHYSICIAN CHARLES-EDOUARD BROWN SÉQUARD (1817-1894) AND HIS ELIXIR OF LIFE

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The neurologist and physiologist Charles Edouard Brown-Séquard (1817- 1894), physiologist and neurologist, was born on the island of Mauritius, to an American father and a French mother. He

is best known for the syndrome of hemisection of the spinal cord, but most clinicians are not familiar with his colorful, quixotic and eccentric life history. Brown-Séguard attended the Royal College in Mauritius, and graduated in medicine at Paris in 1846. He then returned to Mauritius with the intention of practicing there, but in 1852 he went to the United States. There he was appointed to the faculty of the Medical College of Virginia where he conducted experiments. He lived in five countries on three continents and crossed the Atlantic 60 times, spending a total of almost 6 years on the sea. Brown-Séguard was devoted to science. He was not interested in monetary gains through his inventions or patient care. He contributed more than 500 papers in his lifetime, was even the editor of many prestigious journals, and spent his last years as Professor in Collège de France, a most coveted position for a French neuroscientist. Many are not aware of his contributions to endocrinology and hormone replacement therapy. He discovered the vital importance of adrenal glands and laid the groundwork for the discipline of endocrinology. But the world of the 1890s acclaimed him not so much for any of those achievements as for an "elixir of youth" he had compounded out of the testicles of guinea pigs. Even his misplaced enthusiasm for a testicular antidote to aging, however, stemmed from Brown-Séguard's profound understanding of the "internal secretions" of glands. Although he may be criticized for arriving at some incorrect conclusions from his experiments, his visionary ideas and prescient statements have stood the test of time.

PP5. TOTAL, HEALTHY AND NON-HEALTHY LIFE EXPECTANCY AT AGE OF 65 IN BULGARIA – ARE THEY DEPENDENT OF ECONOMIC FACTORS?

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The aim of the study. Life expectancy at the age of 65 in Bulgaria is one of the shortest in Europe and its value is the lowest one within European Union (EU). In line with this, the country is the poorest one compared to the other members of the Union. The aim of this study is to test the hypothesis could economic factors in Bulgaria explain the variations in life expectancy, healthy and non-healthy life years at the age of 65 for the recent years. Materials and methods. Official vital statistics was used: life expectancy and healthy life years at the age of 65, separately for males and females (time series for 2006-2015) as dependent (result) variables; gross domestic product (GDP) per capita (time series for 2000-2015), S80/S20 income quintile share ratio for the age 65 and above (time series for 2006-2015) and consumer price index (time series for 1998-2015) as independent (factor) variables. Linear regression analyses were applied, both univariate and multivariate. Results. GDP per capita lag variables fit all the result variables' variations with correlation coefficients higher than 0.9. The other two factors, S80/S20 income quintile share ratio for the age 65 and above and consumer price index lag variables also show high correlation coefficients (higher than 0.4 up to 0.822). Conclusion. Economic factors explain well the variations in the life expectancy and healthy and non-healthy life years at the age of 65 in Bulgaria. GDP per capita lag variables fit better the models.

PP6. THE ROLE OF VITAMIN D AND GENDER IN COLLAGEN-INDUCED ARTHRITIS IN MICE

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Rheumatoid arthritis (RA) is a systemic autoimmune inflammatory disorder associated with significant impact on patient's quality of life and increase in morbidity and mortality. One potential environmental factor for RA that has been studied extensively in the past decade is vitamin D. The aim of the study was to evaluate the gender difference and the effect of Vitamin D on the prevalence and severity in collagen-induced arthritis in mice. Methods. The collagen-induced arthritis (CIA) mouse model was used for the testing the effects of vitamin D and prevalence of disease development. The CIA was induced by intradermal injection of chicken collagen type II emulsified in complete Freund's adjuvant. A boosted immunization was conducted on the 21st day after the initial immunization, containing chicken collagen type II and incomplete Freund's adjuvant. Visual scale (0, 1, 2, 3, 4) was used to evaluate the inflammation in the animals paws, with score "4" marks the most severe cases and "0" used for healthy animals. Results: Twenty female and 20 male mice were used in the pilot study. Only two mice from the female group develop the disease and 17 from the male group. For evaluation of the effect of Vit. D 30 male mice were used thereafter. They were divided in 3 groups – 10 control, 10 were treated with Vit. D (2000 IU/kg/three times per week) for 2 weeks before induction of CIA and 10 mice were treated with Vit.D (2000 IU/kg/three times per week) starting 3 weeks after the first immunization. The prevalence of the arthritis was significantly less (60% or 6 mice) in the group in which the treatment Vit. D started before the induction of CIA. In the control group and in the group where the treatment with Vit. D started with the booster injection there was no significant difference in the prevalence of the disease (90% or 9 animals; 80% or 8 animals respectively). There was also significant difference in the severity of the inflammation. In the group with vit. D, 3 mice had score "4" on the visual scale, 2 had "3", one had "2" and four had "1". In the group without vit. D (the two groups can be taken together since no treatment with vit. D was done before the booster injection) there were 10 mice with score "4", eight had score "3". In this group there was one mouse with four inflamed paws with score "4". The three groups were monitored for 8 weeks. There was no progression of the inflammation after the booster injection in all groups. The severity of the disease was similar to the results on the day of the booster injection. Conclusions. Male mice are more susceptible to develop CIA, than female. Vitamin D plays important role in normal cell cycle, inflammation and immunity. Data from this experiment demonstrate that Vit. D if used before the development of CIA could have protective role and decrease the prevalence and the severity of the disease. Vit. D had no effect when the treatment is started after the development of CIA.

PP7. LEVELS OF PHYSICAL ACTIVITY IN PATIENTS WITH ASTHMA IN CHILD AGE

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Introduction. Main priorities at national and municipal level in relation to children's health are the stimulation and implementation of good practices for prevention and healthy lifestyle, care and protection of children's and adolescent health, raising the health culture and awareness of adolescents. In support of the national health strategy, the Municipality of Varna has carried out a number of preventive examinations in nurseries, gardens and schools for the purpose of prevention and early detection of diseases in childhood. Aim. The aim of the study is to analyze and compare the level of physical activity in asthmatic children with the level of physical activity in healthy children. Methods. An anonymous survey was conducted among parents of 35 children aged 4-5, attending kindergartens in the city with a diagnosis of asthma and 33 parents of their peers. The survey contains adapted questions from the Seventh Day Physical Activity Recall (PAR) test of the general level of physical activity during the last 7 days and includes sports activities preferred by Bulgarian children. The results are processed with SPSS. A Pearson's Chi-square test was used to test hypotheses to link categories of signs at a critical level of significance $p = 0.05$. Results. The results show that children with asthma move less than their healthy peers ($p = 0.003$). In boys we do not find a relationship between health and sports activities $p = 0.114$, whereas for girls such a relationship is detected ($p = 0.02$). Conclusions. The study found that children with asthma were less physically active than their healthy peers. It is necessary to promote modern recommendations for physical activity in asthma, as physical exercise can be part of the treatment of the disease when considering the severity, the degree of control and the individual specificity of the disease.

PP8. TESTING OF ANTIMICROBIAL ACTIVITY OF MORUS NIGRA EXTRACT COMPARED TO GENTAMICIN

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Despite the rapid development of antibiotics, human infection of bacterial, fungal or viral origin continues to be a significant medical problem. The resistance of a huge number of microorganisms has been caused by the irrational use of conventional synthetic antibiotics. The aim of the paper is to test the antimicrobial activity of the extract isolated from the *M. nigra* fruit and to compare it to the gentamicin. Materials and methods. In this paper, methanol extract of *M. nigra* was used. Mieller Hinton broth (HiMedic, M391) was used as a liquid substrate for cultivating bacterial cultures in experiments of determining the minimum inhibitory and minimal bactericidal concentrations of methanol extracts. In addition to referent bacterial strains from the ATCC collection, strains isolated from swabs of early patients were also used (Source: Institute of Public Health Novi Sad). Results. The results of the antimicrobial activity of the methanol extract of *M. nigra* were compared with the test antibiotic gentamicin. Conclusion. It was needed 100 times bigger concentration of *M. nigra* extract compared to gentamicin to achieve an inhibitory effect against bacterial strains that causes the formation of acne.

PP9. HUMAN MICROBIOME: WHO'S THERE?

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Multicellular organisms live in a close connection to the microorganisms around, no exception for humans. The human body hosts a great number of bacteria, archaea, viruses and eukaryotes which may coexist with their hosts. Human microbiota is known to held about 10¹⁴ microbial cells, ten times the number of human cells in our organism. Bacterial species part of this community had been intensely studied in the latest years, a significant progress in identifying microbial species or agents that contribute to human physiology being achieved. Meanwhile, the identity of some host related factors, involved in different aspects of growth and evolution of microbiota, had been discovered. The importance of having a healthy microbiota is not limited to gastrointestinal tract. A number of extraintestinal physiological aspects were identified as being abnormal on germ-free animals, highlighting the contribution of intestinal indigene microbes in the well-being of the organism.

PP10. THE PAST AND THE FUTURE OF BIOWEAPONS

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The history of mankind is full of usage of biological weapons, either it was unintentional or on purpose. If in the past using microbes as weapons was unintentionally done, in modern times people took advantage of science and grew microbes to fulfill certain tasks. During the Ist World War, anthrax and glanders bacteria were grown for the german army by an american doctor. During the IInd World War, the British started to produce anthrax bombs and anthrax-contaminated feed cakes to drop on Germany. In 1999, scientists listed the most likely pathogens to be used for a possible biological attack: anthrax bacteria, smallpox virus, plague bacteria, botulinum toxin and tularemia bacteria. Then the population's immunization process and decontamination mesures began. Probably, the best defense against a biological attack is the early detection of the offending agent. The question is: will this be sufficient for keeping the population safe or the science will provide new biological weapons unable to be tracked in time?

GASTROENTEROLOGY AND NUTRITION

G1. THE RELATION OF OBESITY AND SMOKING TO CANCER: AN UPDATE 2017

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Nowadays, there is a fresh evidence that obesity and cancer are very close related. Harmful nutrition and the habit of smoking play a very important role in the quality of our life. Furthermore , smoking in Greece remains an unsolved National Issue, which is mainly related to lung cancer and cardiovascular disease. In a prospective study of 900.000 individuals, which has been designed and executed from the American Cancer Society by Calle et al.(2003), based on strictly methodological criteria , it has been detected that obesity was responsible for 14 o/o of all deaths from cancer in man and 20 o/o in females. Additionally, the burden of cancer linked to tobacco smoking represents an ultimately avoidable fraction of cases in the U.S.A. and Calle et al. pointed out how much cancer related mortality could be reduced among non smokers, if body weight were adequately controlled. Both the IARC (International Agency for Research on Cancer) report (2016) and Kyrgiou & Colleagues umbrella review (2017) strongly concluded that excess body fat increases the risk of most digestive system cancers as well as endometrial and postmenopausal breast cancer. The obesity epidemic is now three decades old! Furthermore, the obesity-cancer association is a major clinical concern in Oncology! Therefore, the unavoidable conclusions from the clear data available, up to now, indicate that we can prevent or avoid cancer development, if we have the powerful force to lower the burden of obesity related cancers.

G2. DIET, GERIATRIC MARASMUS AND MALEFICENT CACHEXIA: FACTORS FOR LONGEVITY AND DEATH IN GREEK ANTIQUITY, FROM HIPPOCRATES TO EVAGRIUS OF PONTUS

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Diet for ancient Greeks was a concept that arose from inside the gyms, encompassing the everyday life of the athletes (nutrition, exercise, way of living). Cachexia represented the end stage of life, and it was either benign or maleficent. A correct diet could strongly guide towards longevity, while cachexia was a prelude for Hades. A thorough search was conducted in Greek texts (ancient Greece and Byzantium) by using the TLG database, with the purpose to unveil fragments and testimonies on the subject. The following key words were used during the inquiry: diet, marasmus, cachexia, nutrition, longevity, in an attempt to classify all related terms and to determine the factors which were necessary for ancient Greek medico-philosophers for a prosperous and long life. Herbal drugs, balanced nutrition, cereals, milk, honey, vinegar, gymnastics, holistic treatment, balanced body humors (the 4 humors' theory), and proper environment were the primary key factors for longevity. Cachexia was classified and ways to confront it had been proposed. Hippocrates mentioned a plethora of dietetic combinations both for treatment and longevity and Plato suggested diet. Ancient Greek and Byzantine philosophers and physicians such as Xenophon, Theophrastus, Plutarch, Dioscorides and Aetius, contributed with

their views in theories for a healthier elongated life. The famous theologist Evagrius of Pontus (345-399) gathered those views, understood their significance and blurred by his divine superstitions demonized improper dietetic regimes. In Greek antiquity, philosophers correctly believed that the perfect diet could lead to bliss, well-being and longevity.

G3. RELATION OF SERUM 25(OH)-VITAMIN D TO METABOLIC PARAMETERS IN OBESITY

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The aim of the study. The aim of the present study was to evaluate the relation of serum vitamin D to metabolic parameters in men and women with different BMI. Materials and methods. A total 264 subjects were included – 109 men and 155 women aged 20-60 years. Body weight and height, waist circumference, systolic and diastolic blood pressure were recorded. Body composition was assessed by bioelectrical impedance. Serum 25(OH)D Total and Insulin were measured by electro-hemi-luminescence. High-sensitivity C-reactive protein was measured by an immune turbo-dimetric method together with total, HDL-cholesterol and triglycerides. Results. From all the participants, 27.2 % of the participants had normal weight, 24.6 % - overweight, 29.2 % -class I obesity, and 18.9 % – class II or III. 33.3 % had vitamin D deficiency, 40.2 % - insufficiency. Vitamin D was weakly and inversely correlated to many variables in the group as a whole. The most powerful correlations were with weight, WC, WC/Height, % body fat and HOMA-IR index ($r=-0.231, -0.283, -0.307, -0.339, -0.328$ respectively, all $p<0.001$). Splitting the subjects according to BMI led to loss of significance. Backward analysis revealed total-C/LDL-C ratio, and LDL-C/HDL-C ratio as strongest predictors ($p=0.001$; $R^2=0.204$). Conclusion. Serum 25(OH) vitamin D is weakly correlated to blood pressure, plasma lipids, glucose and insulin is on an individual level. It might be demonstrated in large surveys.

G4. OBESITY - CIRCADIAN AND GENETIC INFLUENCES

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One of the major health burden nowadays is represented by obesity. Although it's generally recognized the fact that we are living in an obesogenic environment and that sedentarism became very common, many cases of obesity could not be managed by caloric restrictions and an increase of physical activity. As in many other domains of our life, it seems that genetics is playing a very important role, representing, after some authors, from 40 to 70% or the etiology of obesity. First of all, there are proofs that rhythm disturbances that appear during pregnancy may lead to programming defects which may become manifest later in life: behavioral problems, blood hypertension, metabolic syndrome, diabetes mellitus, obesity. Maternal circadian rhythms influence fetal rhythms and entrain them to the light-dark cycle, thus they may determine the infants circadian time organization later in life. The regulation of energy balance has an afferent

system with a long-term regulation (ghrelin and serum leptin receptor having orexigenic activity and leptin, obestatin and insulin having an anorexigenic activity) and also with a short-term regulation, with anorexigenic agents: apolipoprotein, cholecystokinin, PYY, pancreatic polypeptide, oxyntomodulin, amylin, serotonin, all of them not only interconnected, but also having genetic determinations. So, it became evident that gene therapy represents a newer modality to curtail weight gain and adiposity for extended periods, thereby increasing not only the quality of life, but also the life span.

G5. FOOD ALLERGY IN INFANTS IN THE PLEVEN REGION

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Cow's milk protein allergy is the leading food allergy in infants and children under 3 years of age. The aim of our study is to establish the frequency and the clinical manifestation of food allergy in infants in the Pleven region. Materials and methods: 94 parents of children of ages varying from 0 to 11 months with displays of food allergy from Pleven and the region were interviewed Results: Food allergy usually occurs in the first 3 months after birth - 32% during the 2nd month, 21% during the 3rd month. Only 2% and 3% at most appear during the 8th, 9th and 10th months. The most common food allergy is atopic dermatitis - 34%; followed by manifestations of the gastrointestinal tract - 28% vomiting, 19% unstable defecations, 10% diarrhea with mucus and blood, 4% constipations. Barely 5% of children have bronchial obstruction. In children aged 2 to 4 months, the values of IgE are high. Elevated Eo values are determined in 51% of children. Conclusion: Cow's milk protein allergy is relatively common but not always easy to diagnose. Complying with diagnostic criteria is necessary for diagnosis, with the clinical evaluation after the elimination and provocation testing being an important factor.

G6. VARIATIONS IN ESSENTIAL MACRO- AND TRACE ELEMENTS DURING LACTATION IN MILK FROM BREASTFEEDING WOMEN FROM URBAN AREA

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The aim of the study. Adequate amounts of essential macro- and trace elements in human milk are required to promote neurological development, enzyme function, metabolism, cell differentiation and maturation of organ systems of infants. The aim of this study was to determine the concentration of some macro- and trace elements in milk obtained from urban areas mothers. Materials and methods. Colostrum and mature milks were collected from 11 lactating mothers residing urban areas of Niš (mean age 32±2.6). All participants were smokers, multiparous and delivered healthy term babies. The preparation of samples was done by wet digestion and levels of 15 elements (Na, K, Ca, Mg, P, Fe, Zn, Cu, Al, B, Ba, Si, Mn, Ni, Pb) were determined by ICP-OES. Results. The results of our study showed statistically significant decrease ($p < 0.05$) of the trace elements concentration between colostrum and mature milk samples. Contrary, among macro-elements considerable increase ($p > 0.05$) was observed during the course of lactation, with the exception of potassium which concentration remained invariable. The mean values for lead in

analyzed colostrums and mature milk samples ($1.74 \pm 0.23 \mu\text{g/L}$ and $1.34 \pm 0.15 \mu\text{g/L}$) were below reported reference range of 2-30 $\mu\text{g/L}$. Conclusions. The results for all analyzed elements were in agreement with those reported by other authors. Breast milk is a convenient matrix in human biomonitoring, as it gives information concerning the toxic elements exposure levels during lactation. Pb levels in analyzed milk samples were lower than the currently recommended safety limits in urban population. Acknowledgements: This research was supported by grant TR 31060 from the Ministry of Education and Science of the Republic of Serbia.

G7. NUTRITIONAL LIPIDS OF CULTURED MUSSELS (MYTILUS GALLOPROVINCIALIS LAMARCK 1819) FROM THE BLACK SEA

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Mussels are inexpensive food, low in calories and high in nutrients. They are considered as sustainable choice of healthy seafood. Although their total lipid content is low, mussel meat contains appreciable amounts of unsaturated fatty acids and vitamins. Lipid composition of cultured *Mytilus galloprovincialis*, harvested in the region of Kavarna (Black Sea), in March 2017 was studied. Total lipids, phospholipids, fatty acid composition, fat soluble vitamins and carotenoids were analyzed. Lipids were extracted from mussel tissue by solvent extraction and purified by chromatographic techniques. Gas chromatography–mass spectrometry (GC-MS) was used for the analysis of fatty acid composition of phospholipid and neutral lipid fractions. The non-saponifiable lipids were identified by high-performance liquid chromatography (HPLC) with ultraviolet (UV) and fluorescence (FL) detectors. Total lipids (TL) accounted $2.3 \pm 0.3 \text{ g} \cdot 100\text{g}^{-1}$ of mussel wet weight. Triacylglycerols (TAG) and phospholipids (PL) represented $64.03 \pm 2.12 \%$ and $26.4 \pm 4.5 \%$ of TL, respectively. Fatty acids composition differed significantly among the two lipid classes. In both fraction the sum of saturated fatty acids (SFA) was higher than monounsaturated (MUFA) and polyunsaturated fatty acids (PUFA). Despite that, phospholipid PUFAs consisted almost exclusively of EPA (eicosapentaenoic acid, C20:5n-3) and DHA (docosahexaenoic acid, C22:6n-3). Together, these two fatty acids represented 29.6% of polar lipids PUFA. Both lipid classes presented nutritionally beneficial n-6/n-3 ratio – 0.3 and 0.2 for TAGs and PLs, respectively. Retinol, α -tocopherol, cholecalciferol, astaxanthin, β -carotene and cholesterol were simultaneously analyzed by means of HPLC/UV/FL. Results showed that Black Sea *Mytilus galloprovincialis* could be a good source of these biologically active compounds.

G8. TRADITIONAL BULGARIAN FOODS – ANTIOXIDANT CAPACITY AND BIOLOGY OF AGING

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One of the major factors for longevity is the specifics of the population nutrition. The Balkan nations are known for their long-livers and this fact advocates the necessity of in-depth knowledge of the composition of the foods constituting the diet and the eating habits. The aim of the present survey focused on two aspects: to present data for the content of nutrients with antioxidant activity in foods, typical for the traditional Bulgarian diet and to explain, based on the

antioxidant hypothesis, the importance of dietary traditions for longevity. Material and methods. The survey investigated the content of vitamins and amino acids with antioxidant capacity in 15 Bulgarian traditional foods. The implemented methods were High-performance liquid chromatography (HPLC) for vitamins A, E and C and classic ion-exchange chromatography method for determination of the amino acids – glycine, cystine and arginine. Results and discussion. The content of the antioxidant vitamins A, E and C in the analyzed traditional foods is presented in tables. Their role in the antioxidant protection of the organism, associated with the biology of aging is discussed. The amino acid content is also presented in table form. The selection of non-essential amino acids was based on their essentiality for the antioxidant protection through the formation of glutathione. The importance of nutrients as food components with high bioaccessibility, bioavailability and bioefficacy is underlined. Conclusion. The survey showed that the analyzed traditional Bulgarian foods, even on the basis of its nutrient composition of vitamins A, E and C, and amino acids Cys, Gly, Glu only, have a sufficient antioxidant capacity that can be engaged in the substantiation of decelerated aging processes. It is necessary to preserve the presence of the traditional foods in the current healthy diet of the Bulgarian population.

G9. ADVANCED MATERNAL AGE AND DIETARY HABITS ON BETA-CAROTENE CONTENTS IN HUMAN COLOSTRUM

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The aim of the study. Advanced maternal age is defined as a pregnancy in women aged 35 years or older. Across the whole Europe there is clear evidence in delaying first childbirth to later reproductive years, especially over 35 years. Beta-carotene (pro-vitamin A) is essential lipophilic nutrient present in human milk with important roles in the early stages of infant life and it is known to have antioxidant and anti-inflammatory activities, which may have implications for future cardiovascular disease, diabetes, inflammatory diseases or cancer. The objective of this study was to assess the effects of advanced maternal age and dietary habits of mothers on β -carotene content in human colostrums. Materials and methods. Samples of human colostrums were collected from nursing mothers under the age of 35 years (n=14) and over the age of 35 years (n=15). All participants were healthy, well-nourished, primiparous and delivered healthy term babies. Information about the dietary habits was obtained through questionnaire. Beta carotene concentration was determined by HPLC. Results. We found statistically significant difference in β -carotene content in colostrums of analyzed two groups ($p < 0.05$). Mean concentration in older group was 189.36 ± 87.20 ng/ml, while in younger group mean concentration was 137.25 ± 67.85 ng/ml. In both groups, there is a strong positive correlation between the frequency of consumption of vegetables and fruits rich in β -carotene during the pregnancy and its concentration in colostrums. Conclusions. Average β -carotene content of analyzed colostrums from primiparous mothers with advanced maternal age is elevated compared to younger primiparous mothers. This finding could be possibly associated with higher overall lipid content in these samples.

Acknowledgements: This research was supported by grant TR 31060 from the Ministry of Education and Science of the Republic of Serbia.

G10. THE INFECTIOUS MECHANISMS OF PRION NEUROTOXICITY

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Prions are generally infectious protein structures mainly responsible for the development of a group of neurodegenerative diseases, usually deadly. Although they were discovered more than 20 years ago, prions still represent a paradox for the molecular biology, given their nature of infectious agents formed exclusively of amino-acids, with no genetic composition, but capable to multiply within the host body. Prion proteins could normally be found in the body of mammals, birds and fish, being present in the membrane of all cells and recording a relatively high density in both, central and peripheral nervous systems, the lymphatic tissue and the neuromuscular junctions. The physiological role of these structures isn't clearly defined, but it's widely considered that prion proteins contribute to the integrity of the plasmalemma. Additionally, they are believed to contribute to the normal activity of the superoxide dismutase enzyme (SDE), and the transmission of the nervous impulse. Interestingly, the prion protein could present two structural conformations of the same molecule: a regular form of the prion protein, also known as the cellular prion protein, and a distorted infectious and neurodegenerative form of the same protein. The study of prions has unexpectedly increased lately. However, little is yet known with regards to the prion diseases from a biological standpoint, with the pharmacotherapy being still in the early stages of its development.

G11. RECREATIONAL ANGLER EXPOSURE TO DOMOIC ACID VIA CONSUMPTION OF CONTAMINATED SHELLFISH FROM THE BLACK SEA, BULGARIA: A PRELIMINARY STUDY

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Domoic acid (DA) is a neurotoxin that causes amnesic shellfish poisoning with gastrointestinal symptoms (vomiting, diarrhea or abdominal cramps) and/or neurological symptoms (confusion, loss of memory, or other serious signs such as seizure or coma). Shellfish are recognized vectors of DA to humans. However, the exposure of anglers in Bulgaria through consumption of DA-contaminated shellfish is unknown. The aim of this study was to measure DA in shellfish species *Mytilus galloprovincialis* targeted by anglers in North Black Sea, Bulgaria and to assess anglers exposure to DA regarding their shellfish consumption patterns. Materials and methods. The research is conducted in the period September 2016 – May 2017. DA was confirmed via a method for the simultaneous identification and quantification by liquid chromatography–tandem mass spectrometry (LC–MS/MS). An intercept survey, a type of face-to-face interview, was conducted to determine whether recreational anglers were at risk of exposure to DA toxins as a result of their consumption of harvested shellfish. Results. Mean DA concentration is 0,707 µg DA/g hepatopancreas which is much less than the current EU limit of 20 mg DA/kg shellfish meat. Estimated acute dietary exposure is 1,431 µg DA/ kg bw does not exceed the acute reference dose of 30 µg DA/ kg bw Conclusion. The present study showed that anglers can not be exposed to symptomatic DA doses through consumption of their catch.

G12. COMPARATIVE ANALYSIS OF THE RISK OF MALNUTRITION BY NUTRITION DAY 2016 DATA

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Aim of study. Comparative analysis of nutritional risk through auditing the Nutrition Day 2016 - 23/02/2017 data in different groups of hospitalized patients at the University Hospital "Tsaritsa Yoanna – ISUL". Materials and methods. In a group of 113 patients / 54 males with an average age of 60.84 ± 15.27 y. and 59 women with an average age of $59,90 \pm 15,07$ y. / hospitalized in the Clinics of Gastroenterology, Metabolic-Endocrine diseases and Dietetics, Oncology, Radiotherapy and Oto-Rhino-Laryngology of the University Hospital " Tsaritsa Yoanna-ISUL" is administered survey with updated standardized Nutrition Day 2016 questionnaire to assess the current nutritional status, food intake particularities, health status self-assessment and hospitalization length among others. Within the survey, patients underwent clinical examinations in order to build up the medical history and the current clinical data on morbidity, in due course were studied anthropometric and laboratory routine hematological and biochemical parameters. The risk of malnutrition was evaluated in all patients through the Malnutrition Universal Screening Tool (MUST). Results: 33.33% of the patients are attributed high MUST risk of malnutrition, 15.38% respectively - moderate and the remaining - low. The lowest MUST risk was attributed to patients with compensated chronic liver disease, diabetes mellitus and metabolic syndrome, whereas the highest was to patients with inflammatory bowel disease, oncological diseases, and chronic pancreatitis. The appetite of 58.97% of the patients was estimated normal, while 41.03% related to decreased. The dietary intake during the last week prior to hospitalization corresponded to normal in 66.69% of the cases. All of the following are indicated to have thorough Impact on the nutritional status: age, gender, accompanying diseases, health status, appetite, quantity of food intakes and diet therapy requirements. Conclusion. The risk of malnutrition is common and significant among hospitalized patients, requiring a systematic diagnostic approach for early detection with subsequent adequate therapeutic treatment.

CARDIOLOGY

C1. PRISE EN CHARGE DE L'HYPERTENSION ARTÉRIELLE EN EUROPE: ÉTAT DES LIEUX ET PERSPECTIVES

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L'Union Européenne (UE) compte 28 états membres et 510 millions d'habitants, dont la moitié vit en Allemagne, en France, en Grande Bretagne et en Italie. La prévalence d'une pression artérielle (PA) $\geq 140/90$ mmHg et d'un index de masse corporelle > 25 kg/m² est proche de 50 %. La première cause d'une perte d'espérance de vie est la maladie coronaire. Le pourcentage de personnes âgées de plus de 65 ans est de 17 % et devrait augmenter dans les 20 prochaines années, avec une augmentation parallèle de la PA, du surpoids et de la morbidité cardiovasculaire. Les objectifs fondamentaux de prévention cardiovasculaire ne sont pas atteints: moins de 50 % des hypertendus traités sont contrôlés et 17 % des citoyens de l'EU restent des fumeurs actifs. Les recommandations visant le contrôle de la PA chez les hypertendus en général, les hypertendus diabétiques et âgés en particulier, restent peu consensuelles et peu suivies. Dans ce contexte, un effort considérable des formateurs, des personnels de santé, des sociétés savantes et des sources de financement reste nécessaire. La société Européenne d'hypertension artérielle (ESH) y participe par la mise à jour des recommandations, par la création d'un réseau d'excellence en hypertension et par la formation de groupes de travail spécialisés. En parallèle, l'UE finance de nombreux programmes de recherche cardiovasculaire dans la cadre du programme Horizon 2020.

C2. LA MALADIE ARTÉRIELLE PÉRIPHÉRIQUE: EST-T-ELLE DIFFÉRENTE CHEZ LES FEMMES?

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La maladie artérielle périphérique des membres inférieurs est associée à une morbidité et une mortalité similaires à celles de la maladie coronarienne et de l'AVC ischémique. L'impact de la maladie artérielle périphérique chez les femmes a longtemps été ignoré. Les données publiées ces dernières années montrent toutefois que les femmes souffrent des conséquences de la maladie artérielle périphérique dans une proportion similaire à celle des hommes. Bien que des études antérieures aient suggéré que la maladie artérielle périphérique est plus fréquente chez les hommes, des données récentes montrent que la prévalence chez les femmes est au moins égale à celle des hommes. La maladie artérielle périphérique est fréquemment sous-diagnostiquée chez les femmes, en raison de symptômes atypiques, souvent mal interprétés comme l'arthrite, l'ostéoporose, la discopathie lombaire. Parce que les symptômes peuvent être atypiques, il est nécessaire de mesurer l'indice de cheville-brachial, en particulier chez les femmes à haut risque. Les femmes atteintes d'une maladie artérielle périphérique présentent une déficience de la fonctionnalité, plus rapide et plus sévère par rapport aux femmes sans maladie artérielle

périphérique. Les femmes atteintes d'une maladie artérielle périphérique sont sous-traitées et sous-représentées dans les essais cliniques. Bien que les lignes directrices n'aient pas de recommandations différentes basées sur le sexe, moins de femmes atteintes d'une maladie artérielle périphérique reçoivent un traitement recommandé, malgré des facteurs de risque plus élevés que les hommes.

C3. LE TRAITEMENT DIURETIQUE DANS L'INSUFFISANCE CARDIAQUE CHRONIQUE

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La thérapie diurétique est l'une des principales thérapies pour l'insuffisance cardiaque. Le principe sous-jacent de cette thérapie est que la rétention d'eau et l'œdème sont l'un des symptômes les plus importants de l'insuffisance cardiaque. L'examen clinique du patient présentant une insuffisance cardiaque révèle souvent des signes de surcharge de volume. Les directives de traitement actuelles pour l'insuffisance cardiaque recommandent des diurétiques à tous les patients présentant des signes de rétention d'eau, quelle que soit la classe NYHA. Lors de l'initiation du traitement diurétique, la fonction rénale et les électrolytes sériques doivent être évalués. Les diurétiques utilisés dans l'insuffisance cardiaque sont divisés en trois classes: thiazide, diurétiques en boucle et diurétiques qui conservent le potassium. La plupart du temps, les diurétiques thiazidiques sont les premiers à être utilisés. Par la suite, selon l'évolution du patient, il peut être nécessaire d'augmenter la dose de diurétique thiazidique ou d'initier des diurétiques en boucle. Les maladies cardiovasculaires induites par le diurétique peuvent augmenter le risque d'arythmie, de sorte que la surveillance du potassium sérique est particulièrement importante. La détérioration de la fonction rénale chez les patients souffrant d'insuffisance cardiaque nécessite un ajustement de la dose du diurétique ou le remplacement du diurétique thiazide par les diurétiques en boucle. Les diurétiques ont également des effets neuroendocriniens dans l'insuffisance cardiaque, agissant sur le système rénine-angiotensine-aldostérone. Dans l'insuffisance cardiaque avancée, une résistance aux diurétiques peut se produire, nécessitant l'adoption d'une stratégie de blocage séquentiel neuronal en combinant plusieurs types de diurétiques.

C4. PULSE WAVE VELOCITY AS AN INDEPENDENT MARKER OF CARDIOVASCULAR RISK

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Carotid-femoral pulse wave velocity is considered the "gold standard" for the measurement of aortic stiffness, which has been identified as one of the most important pathophysiological factors

of pulse pressure increase with ageing and of cardiovascular disease progression. The aim of this study is to review the current evidence of the impact of physiological and pathophysiological factors on pulse wave velocity as well as the influence that pulse wave velocity has on cardiovascular disease prognosis. Many studies have reported the role of pulse wave velocity as an independent predictive marker for asymptomatic target organ damage, fatal and non-fatal cardiovascular events, beyond conventional risk factors. Pulse wave velocity can also be used for stratification of total cardiovascular risk, independently of SCORE and Framingham risk score, and reclassification of a substantial proportion of patients at intermediate cardiovascular risk. Finally a few recent technological developments in relation to pulse wave velocity measurement will be presented.

C5. HYPERTENSION AFTER KIDNEY TRANSPLANTATION: CLINICAL SIGNIFICANCE AND THERAPEUTICAL ASPECTS

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The prevalence of arterial hypertension is over 85% in kidney transplant recipients. It is an important factor for post-transplant cardiovascular morbidity and mortality and contributes for long-term graft and patient survival. A variety of donor and recipient related factors, type of immunosuppressive therapy (CNI, steroids) and surgical complications (stenosis or renal artery kinking, ureteral obstruction) may be responsible for the appearance of post-transplant hypertension. According to JNC 8 and KDIGO recommendations blood pressure (BP) $\geq 140/90$ mmHg is considered as hypertension. Target office blood pressure $< 140/90$ mmHg and ABP $< 130/80$ for patients without proteinuria and $< 125/75$ mmHg for patients with proteinuria is recommended. Usual antihypertensive drugs as diuretics, calcium channel blockers (CCB), angiotensin converting enzyme (ACE) inhibitors, angiotensin –II receptor blockers (ARB) and B-blockers, can be used for a treatment of post-transplant hypertension. Kidney transplant recipients with well-control blood pressure improve long-term graft survival.

C6. PERIOPERATIVE MANAGEMENT OF HYPERTENSION

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Preexisting arterial hypertension is a main reason for postponing surgery. Hypertension is a risk factor for cardiovascular complications during the perioperative period. The term peri-operative generally refers to the three phases of surgery: pre-operative, intra-operative, and post-operative. Sympathetic activation during the induction of anesthesia can cause increases in blood pressure by 20 to 30 mm Hg and increases in heart rate by 15-20 beats per minute in patients with normal blood pressure values. These values are higher in patients with untreated hypertension. The effect of chronic hypertension on perioperative risk is determined primarily by the presence of target organ damage, coronary artery disease, stroke, heart failure and renal failure, all of which are

known to affect perioperative morbidity and mortality. There are no randomized clinical trial data showing what the optimal blood pressure should be at the time of surgery. In patients with grade 1 or 2 hypertension, there is no evidence of benefit from delaying surgery to optimize therapy. In such cases, antihypertensive medications should be continued during the perioperative period. Most antihypertensive drugs should be continued to the day of surgery and restart as soon as possible (when the patient will be able to swallow). Only agents that affect the renin-angiotensin-aldosterone system should be cancelled (angiotensin converting enzyme inhibitors and angiotensin receptor blockers). Regarding betablockers, the treatment should ideally be initiated between 30 days and at least 2 days before surgery, starting at a low dose, and should be continued post-operatively. The target is a resting heart rate 60-70 bpm and systolic blood pressure > 100 mm Hg.

C7. BENEFITS OF OBSTRUCTIVE SLEEP APNEA TREATMENT IN PATIENTS WITH HEART FAILURE

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Obstructive sleep apnea syndrome (OSAS) is a common disorder and its diagnosis impose the assessment of associated comorbidities. Arrhythmias, hypertension, ischemic heart disease, metabolic disorders and chronic obstructive pulmonary disease are the most commonly associated co-morbidities of OSAS. Ischemic heart disease and nocturnal angina are common in patients with OSAS, having the same mechanism, intermittent hypoxia and excessive stimulation of the sympathetic nervous system during sleep. Recent studies claim that OSAS appears to be an important predictor for ischemic heart disease and heart failure. These studies suggest that sleep apnea syndrome in men significantly increases the risk of fatal and non-fatal cardiac events. Ventricular hypertrophy (right>left) and diastolic dysfunction are structural cardiac changes commonly seen in patients with OSAS. Continuous positive airway pressure (CPAP) therapy seems to reduce these risks. OSAS treatment in patients with heart failure is represented by CPAP therapy. Many studies claim that the use of CPAP in chronic heart failure led to an increase in left ventricular ejection fraction, prevents the progression of diastolic dysfunction, decreasing the frequency of premature ventricular beats. Also, it has been concluded that the use of CPAP in young patients without structural changes of the heart leads to disappearance of nocturnal cardiac arrhythmias. Screening for OSAS is very important in patients with heart failure because its treatment may slow or prevent the progression of heart failure.

C8. CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN HEART FAILURE PATIENTS

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Chronic obstructive pulmonary disease (COPD) and heart failure (HF) are major health problems worldwide. The coexisting of both conditions in the same patient represents diagnostic and therapeutically challenges. Both diseases are systemic disorders with overlapping pathophysiological characteristics. Left-sided heart failure, frequently caused by high blood pressure or coronary artery disease it is not directly related to COPD. But decreased oxygen saturation due to COPD puts extra strain on the heart and an increased in fluids secondary to HF deteriorates dyspnea in COPD patients. During right-sided heart failure, COPD influences the right ventricle due to pulmonary hypertension which is a response to abnormally low oxygen levels in the vessels. Clinical symptoms (dyspnea, cough, wheezing) and signs (skeletal muscle alterations) frequently overlap. B-type natriuretic peptide (BNP) and N-terminal pro-BNP are used for excluding HF in subjects with acute dyspnea, but their accuracy in patients with concurrent COPD is less certain. On the chest X-ray the presence of hyperinflation reduces the cardio-thoracic index even in the presence of HF. Every patient should benefit of an echocardiography and pulmonary function tests (performed in euvoalaemic status). There is no cure for either COPD or HF. Smoking cessation and regular physical activity remain very important. The coexisting of the two conditions influences therapeutically approach: long term used of beta-blokers are underused in HF patients with COPD.

C9. CARDIOVASCULAR RISK IN PATIENTS WITH SYSTEMIC SCLEROSIS, EVALUATED WITH POPMÈTRE®

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The aim of the study. Systemic sclerosis (SSc) is a multisystemic disease, characterized by vascular alterations, which can lead to cardiovascular complications. Measurement of arterial stiffness can be used as part of the evolution monitoring of SSc. The objective of the study was to evaluate the utility of measuring the pulse wave velocity with the pOpmètre® device in patients with SSc. Materials and methods. The study group consisted of patients with SSc, in which demographic, clinical and paraclinical data were collected and arterial stiffness was estimated by measuring the finger-toe pulse wave velocity (ft-PWV) using the pOpmètre® device. Results. The descriptive study included 37 patients with SSc. Distribution of patients by gender: 91.89% women and 8.11% men. The mean age of the study group was 56 years (minimum 38 years, maximum 75 years). Distribution of major comorbidities in the study group: 37.84% hypertension (mean systolic blood pressure 117.72 mmHg, mean diastolic blood pressure 74.29 mmHg), 35.14% dyslipidemia, 5.41% type II diabetes mellitus. 18.92% of the patients were smokers. In terms of body mass index, 13.51% of patients were underweight, 40.54% normal weight, 37.84% overweight and 8.11% obese. 21.62% of patients had an ankle-brachial index less than 1. Only patients aged 30-39 years had normal values of ft-PWV. All other patients showed pathological values of arterial stiffness. Conclusion. Patients with SSc showed increased arterial stiffness, assessed by measuring ft-PWV with the pOpmètre® device. This could be used to monitor disease progression and to predict cardiovascular complications in patients with SCS.

SURGERY

S1. BARIATRIC SURGERY - A REAL HOPE OR JUST FAKE NEWS?

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Last years, bariatric surgery emerged as the most effective tool for treating obesity, many considering that its results are represented by long-term weight loss and remission of obesity-related comorbidities. The exact mechanism of weight reduction remains not clearly understood because this one is so complex that it cannot be explained only by the restrictive or malabsorptive nature of these procedures. Gastric by-pass seem to obtain better results than vertical banded gastroplasty or banding. And a meta-analysis of 22.090 patients revealed that regarding the cardiovascular risk, at 5 years significant reductions for hypertension, dyslipidemia, diabetes mellitus and for sleep apnea were obtained. But there are also many studies that mention rare but significant side effects of bariatric surgery: postbariatric surgery hypoglycemia; unfavorable changes of gut microbiota; increased bile acids; bleeding; embolism or thrombosis; wound complications, deep infections; pulmonary complications; acute pancreatitis; pancreatic cancer; heart failure; suicide; depression; self-harm; death; clostridium diarrhea; autoimmune diseases; deficiencies for iron, folic acid, B12 vitamin; food intolerances: for meat, milk, sweets, bread. Another important and deleterious side effect is represented by addiction transfer, acquiring (after stopping overeating) new compulsive disorders: alcoholism, gambling, compulsive shopping. Last, but not least, 6 of the 7 ethics review boards in Sweden considered high the mortality rate after gastric surgery.

S2. SERGE VORONOFF (1866-1951): DEBATING THE METHOD OF REJUVENATION

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Serge Abrahamovitch Voronoff was born in Russia in 1866. He immigrated to Paris in 1885 as a refugee, where he studied Medicine. He travelled to Cairo and became the personal surgeon of the last khedive of Egypt. There, he observed eunuchs of the King and concluded that the absence of testicles was responsible for aging and that their presence should prompt rejuvenation. Returning to Paris, he devoted his life to transplantations, firstly among animals and afterwards from primates to humans. His work on testicular transplantations was innovative. Voronoff performed over forty operations on men and believed that transplantation of testicles mostly contributed to rejuvenation and retrieval of physical health and later to sexual activity. His method seemed to have beneficial results, according to witnesses and it was superior to opotherapy, therefore Voronoff dominated the field of transplantations for two decades, until testosterone was discovered in 1935. Voronoff was forced to end his experiments under pressure from the

scientific community, which questioned the results of his operations. Voronoff also performed ovarian transplantations from animals to women. His work on bone transplantations is considered admirable, as he directed the first specialized hospitals for bone transplantations. Voronoff has been accused for introducing primate viruses into humans during his transplantations, especially HIV, an assumption that seems highly unlikely. He passed away in Lausanne in 1951, wealthy but with no academic recognition. Despite the judgment, Voronoff is considered one of the founders of transplantations and a pioneer in the field of rejuvenation.

S3. GASPARE TAGLIACOZZI (1545-1599): THE FATHER OF PLASTIC SURGERY AND NASAL RECONSTRUCTION

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Gaspare Tagliacozzi was born on March 1545 in Bologna. At the age of 20, he began studying medicine at the University of Bologna and he graduated four years later, in 1569. After his graduation, he became professor of surgery and anatomy at the Archiginnasio of Bologna. In order to teach anatomy, he procured bodies of executed prisoners from the Confraternita della Morte (Brotherhood of Death), which coordinated Ospedale della Morte, (Hospital of Death). During his career, his most famous and principal work was the so called surgery book “De Curtorum Chirurgia per Insitionem”, which was published in 1597. In this book, not only he described with every single detail the empirical surgical procedures of the Sicilian 15th century surgeons Gustavo Branca and his son, Antonio, but also he was the first one to describe extensively the “Italian method”. The “Italian method” was a plastic surgery operation for nasal reconstruction that appeared in the 15th century. Tagliacozzi’s description of the “Italian method” was a milestone for plastic surgery as he was also the first to establish scientific validity at this sector. Until the 20th century, several surgeons adopted the techniques Tagliacozzi’s described. Tagliacozzi died in Bologna on 7 November 1599 and he was buried at the church of St. John the Baptist.

S4. LAPAROSCOPIC ADRENALECTOMY: FIRST SINGLE-CENTER EXPERIENCE ON THE BALKANS

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Introduction. Laparoscopic adrenalectomy has become the preferred approach for removal of the adrenal gland for the management of benign or malignant functioning or nonfunctioning adrenal masses. We aimed to present our initial experience with this procedure. In addition, we compare the clinical outcomes of laparoscopic (LA) vs. the open adrenalectomies (OA) performed at our institutions. Also we report a case of successful laparoscopic treatment of splenic artery aneurism involving laparoscopic splenectomy. Patients and methods. A retrospective analysis of the data of all patients who underwent adrenalectomy at three institutions, over the last 12-year period, since the laparoscopic adrenal surgery was introduced in our country. All patients were assessed regarding the demographic data, hormonal status, operative time, estimated blood loss,

complications, size of the tumor, number of patients requiring blood transfusion, hospital stay and conversion to open surgery for LA. Results. Forty one consecutive patients, aged from 33 to 67 (average age 54 years) underwent unilateral LA adrenalectomy during the study period including 14 right and 21 left sided. The laparoscopic procedure was successfully completed in all except 4 cases, which were converted to open surgery to control bleeding from the avulsed adrenal veins. LA proved superior to OA, resulting in less estimated blood loss, shorter operating time, shorter time to resumption of oral intake, shorter postoperative hospital stay and less analgesic requirements. During the follow-up of 3 to 36 months no tumor recurrence and/or metastasis developed.

S5. LAPAROSCOPIC COMBINED COLORECTAL AND LIVER RESECTION FOR METASTATIC COLORECTAL CANCER

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Nowadays, regarding a personalized multimodal approach, laparoscopic liver and colorectal resections, separately distinguished, are accepted as feasible, safe and oncologically equivalent to open resections surgical methods of treatment for colorectal carcinoma. However, there is still no consensus, regarding the applicability of combined laparoscopic colon and liver resection. The aim of the present study is to determine the feasibility of combined different volume laparoscopic colon and liver resection in selected patients with primary colorectal cancer and synchronous liver metastases. Materials and methods. From April 2014 to April 2017 thirteen patients with primary CRC and a synchronous liver metastases underwent combined totally laparoscopic or “hybrid” liver and colorectal surgery. Patient and tumor characteristics, operative variables, and postoperative outcomes were evaluated prospectively. Results. The primary tumor was located in the colon in 9 patients and in the rectum - in 4 patients. Seven patients had a solitary synchronous liver metastasis and 6 patients - multiple. The major hepatic resections were 5. Postoperative complications were observed in two patients (grade IIIa and IIIb, respectively), mortality rate was zero. R0 resection was achieved in 12 patients, and in one patient laparoscopic combined procedure was the first stage of a two-stage liver resection. Recurrent disease was found in two patients on the 3rd and on the 14th month respectively. Conclusions. Simultaneous laparoscopic colorectal and liver resection appears to be feasible in selected patients with CRC and SLM on providing an adequate preoperative selection and combined surgical expertise.

S6. THE ROLE OF VASCULAR RESECTION IN PANCREATIC CANCER TREATMENT

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Currently, porto-mesenteric vein resection is a standard procedure at high-volume pancreatic centers. Experience in vascular surgery is indispensable for a modern pancreatic surgeon. Nowadays, only arterial resections still are a controversial issue. Nevertheless, attempts at resection involving reconstruction of the main arteries such as the coeliac axis, hepatic artery, and

superior mesenteric artery have been reported. An overview of the historical and contemporary methods for surgical management of superior mesenteric/portal vein involvement as well as arterial involvement by pancreatic cancer is presented. Materials and methods. We compare the data from the literature with our data based on the examination and long-term follow-up of more than 300 radical pancreatic resections. Seventy-two of the presented patients underwent pancreatic resection with simultaneous vascular resection—SMPV in 65 cases (44 with resection of the portal vein, 15 with resection of the superior mesenteric vein, 6 with resection of the portomesenteric confluence), arterial in 2 and partial resections of IVC in 5 cases. Combined vascular resections were done in three cases. Results. Both groups PVR and PR showed similarly close results in complication rates, mortality, and morbidity. Three and 5 years survival rates were 42 and 38% in PD group and 28 and 19% in the PVR group. Conclusions. The vascular resection must be performed only upon carefully selected patients with data for presence of resectable tumors or tumors with borderline resectability from the preoperative imaging studies. The prompt management of pancreatic cancer with vascular involvement should involve multidisciplinary consultation in high-volume centers.

S7. PURE LAPAROSCOPIC RIGHT HEPATECTOMY USING ANTERIOR APPROACH FOR METASTATIC BREAST CANCER

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Pure laparoscopic hepatectomy is a minimally invasive procedure that leads to fast recovery. This still can be a challenging procedure, especially if anterior approach is required. A case of a 58 years old female in a good general condition, suffering from metastatic lesion (7 cm) in the right part of the liver is presented. She has had left radical mastectomy for breast cancer combined with adjuvant chemotherapy. On follow-up PET/CT scan, 21 months after the breast operation, a metastatic lesion was detected. Materials and Methods After open-laparoscopy and exploration of the abdomen we focused on the liver, which presented with heavy steatosis and a huge solitary metastatic lesion. This is the reason why we have chosen anterior approach. We started with dissection of the hepatoduodenal ligament, then divided the right hepatic artery and right hepatic vein. The parenchyma was transected with minimal blood loss and the right hepatic pedicle and the right vein were transected with linear endoscopic stapler (45 mm). The specimen was extracted through a mini-Pfannenstiel laparotomy. Results. The operative time was 210 minutes and the blood loss was under 100 ml. No additional blood transfusion was required. The entire procedure was totally laparoscopic. The postoperative hospital stay was 5 days without any complications. Conclusions. Laparoscopic liver resection enable the patient to have early discharge from the hospital with minimal percent of postoperative complications. Performed by experienced surgeon, laparoscopic liver resections using anterior approach show excellent short and long-term outcomes.

S8. IS THE REOPERATIVE THYROID SURGERY MORE RISKY PROCEDURE IN RECURRENT GOITER

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There are fears of reoperative surgery of the thyroid gland because of the higher risks of complications. The goal of our study was to evaluate the risks from reoperative procedures of the thyroid gland in patients with recurrent thyroid diseases. Between 2001 to 2015, we have operated 709 patients with different thyroid pathologies. In 81 patients, we had to performed reoperation for recurrence. Only 2 patients had postoperative unilateral palsy of the recurrent laryngeal nerve and 3 patients had temporary hypoparathyroidism with Ca levels <1.90. Surgical procedure we used in all was the lateral approach to the thyroid remnant with very good exposure and cosmetic results. In conclusion, the reoperation of the thyroid gland is safe procedure with low risk of complications.

S9. LAPAROSCOPIC CHOLECYSTECTOMY IN THE ELDERLY PATIENTS - A COUNTY HOSPITAL EXPERIENCE

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The aim of the study. Advancing age with its associated co-morbidities increases the likelihood of postoperative complications, as well as conversion rate, during laparoscopic cholecystectomy. The present study assessed the safety and applicability of laparoscopic cholecystectomy in the elderly patients of 65 years old and above. Material and methods. This study is an analysis of 173 patients, over 65 years of age, who underwent laparoscopic cholecystectomy from January 2012 to December 2016 in our surgery department. The data included demographic details, co-morbidities, underlying biliary pathology, indications for surgery, operative and postoperative complications, morbidity and mortality, and hospital stay. Results. Laparoscopic cholecystectomy was done in 173 elderly patients, with a mean age of 69.56 years, out of whom 52 (30.05%) were males and 121 (69.94%) were females. Co-morbid conditions were identified in 53.17% (n = 92) patients. There were 67 (38.72%) emergency laparoscopic cholecystectomies and 106 (61.28%) patients were operated electively, mean operative time being 65 minutes. Fourteen (8.09%) patients required conversion, 23 (13.29%) patients developed postoperative complications. The mean hospital stay was 5.30 days. Conclusion. There is no undue risk in laparoscopic cholecystectomy in the elderly population and the procedure can be regarded as safe as in patients below 65 years of age.

S10. THYROID CANCER INCIDENCE IN SURGERY OF THYROID GLAND

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Background. There was performed a prospective study for follow-up according to a medical register model: “Thyroid goiter and its variations. Diagnosis, post-operational complications”. Materials and methods. From 1 January 2002 to 31 July 2005, we selected a total of 279 patients who were operated on thyroid gland at the Third Clinic of General Surgery in University Hospital Center “Mother Theresa” in Tirana. Results. 250 of the 279 patients in this study were women (89.61%) and 29 there were men (10.39%), female-male ratio was 1:8.93 (in literature 1:5.4%). In 189 patients (66.67%) the group-age was from 26-50 years old. When the intervention was done, all the patients were hormonally balanced (euthyroidien) and without biochemical alterations. The multinodular non-toxic goiter was the most common observed disease 63.8% (women were 161 or 64.4% and men 17 or 58.62%). The common operation to be performed was the subtotal thyroidectomy, 51.60%. The histo-pathological forms which dominate are: Adenomatous Hiperplazia mix form with 122 (67.41%) patients and Folikular Adenoma with 55 (22.08%) patients. The thyroid cancer was found in 3.58% (women were 8 or 3.2% and men 2 or 6.9%). The histo-pathological forms were papillary 3 and follicular 7 patients. For 4 patients resulted with thyroid cancer the beginning diagnoses was multinodular non-toxic goiter and for 1 patient it was cold nodul. The average age for the women it was 46.7 years and for men 30.5 years. Conclusions. The incidence of thyroid cancer found in patients with multinodular non-toxic goiter thyroid disease was 2.25% (in literature less than 5%) and 3.4% in patients with cold nodul (in literature less than 5%). The finding of thyroid cancer disease in patients with multinodular non-toxic goiter and cold nodul when it was not suspected clinically show the necessary of FNA (Fine Needle Aspiration) on thyroid gland.

S11. THE APPLICATION OF A TRILOBAR GLABELLAR FLAP FOR AN AESTHETIC RECONSTRUCTION OF CUTANEOUS DEFECT ON THE NASAL OSSEOUS DORSUM

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It's true, that the glabellar flap is one of the most efficacious local versions to cover the tissue defect on the osseous nasal dorsum and to reconstruct the ocular medial canthus. The main problems that initiate our modification were: firstly, the great rotative axis in the classic trilobar glabellar flap, which causes a large “dog ear” in the radix nasal skin, aesthetically problematic for the patient; and on the other hand, a voluminous cutaneo-adipose canthal reconstruction, functionally problematic in the limitation of the medial visual field and in the palpebral mobility. Respecting the trilobar design of the classic flap and the reconstructive function of each lobe, we modify only the position of the third lobe of the flap, the lobe on the side of the tissue defect. The first lobe (over the medial extremity of the eyebrow, on the opposite side with the defect) remains in the same position and has the same measurements with the classic flap, and is destined to be rotated with 90° in the metopic axis, to protect the intersuperciliary distance. As in the classic flap, the second lobe is designed in the metopic line, and represents a greater longitudinal measure, for the correction of donor site of the third lobe. The 180° rotation of this lobe, for a direct reconstruction of the tissue defect on the nasal radix (as in the frontal flap), will be

followed with serious aesthetic problems, because of the great skin folding on nasal dorsum. In the classic flap, the third lobe is designed over the eyebrow of the same side with the nasal defect. So, it incorporates extensive musculo-adipose tissue, with esthetic and functional subsequences in the reconstructed region. It was the reason of a transposition of this lobe under the eyebrow, from the frontal in the orbicular region. Our modification of third lobe design is followed from a good esthetic result in nasal radix skin, not only of the diminution of the rotation angle from 120° in 90° , which reduced skin fold on nasal dorsum, but and because of the morphologic characteristics of the orbicular region skin, which is very thin and incorporates loose conjunctive tissue underneath. On the other side, this orbicular flap is esthetically and functionally effective in the reconstruction of the ocular medial canthus, when this region is included in the defect, because of the great morphologic similarity between the skin of the orbicular region (the donor site) with the skin of the palpebral region (the recipient site). At last, we express our confidence, that this modification will gain the sympathy of our colleagues and will be welcomed in their clinical practice.

VARIA

V1. L'HISTOIRE DE LA LONGEVITE: ENTRE SCIENCE, CROYANCE ET SUPERSTITION

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La vieillesse toujours effrayait l'homme. La déficience physique et mentale qui la caractérisent et les maux qui l'accompagnent font peur. Les philosophes, les naturalistes, les médecins et les pharmaciens ont toujours cherché à expliquer les causes du vieillissement et à retarder ses effets. Cependant, les résultats de ces efforts ont été décevants puisque la source légendaire de la jeunesse éternelle, et l'élixir de la longévité n'est pas encore trouvé. C'est aussi étonnant que la grande révolution spirituelle de la Renaissance n'a eu aucun effet en gériatrie et pendant des siècles deux grandes tendances ont dominé. La première préconisait des diverses méthodes de traitement afin de rétablir la jeunesse aux personnes âgées et la seconde proposait des méthodes préventives. Le progrès de la médecine dans les siècles qui vont le suivre a aidé les médecins de comprendre le procès biologique du vieillissement et de trouver des solutions plus ou moins efficaces. La plupart des grands cliniciens du XIXe siècle consacrent des monographies à divers aspects de la pathologie sénile et les grands médecins de l'époque tels que Charles-Edouard Brown Séquard (1817-1894), Eugen Steinach (1861-1944) et Serge Voronoff (1866-1951) inventent des méthodes de rajeunissement. Au cours des décennies suivantes la génétique et la biotechnologie nous donneront probablement une solution plus efficace de combattre la vieillesse et d'approcher le potentiel maximal de vie, la longévité.

V2. FROM COMMON WARTS TO HPV VACCINE: A HISTORICAL OVERVIEW

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Human papilloma virus (HPV) is the most common cause of sexual transmitted infection worldwide. It has been proposed that the great majority of woman and men (75%) have been infected at least once in their lifetime. Infection varies according to the involved anatomic area (genitalia, oropharynx, skin). Condylomata accuminata were known since Hippocratic era (5th century BC). Around the 1st century AD Roman physicians such as Aulus Celsus, in his work *De Medicina*, referred and analyzed the types of cutaneous warts. The outbreak of syphilis in 15th century provoked confusion in the etiology of HPV lesions. Centuries later, the Scottish surgeon Benjamin Bell (1749–1806) was the first to explain that these warts were unrelated to syphilis. Around 1800 variable suggestions from different physicians searching etiology of cervical cancer create a new page in the "book" of researches. In 1900 oral condylomas were linked with the genital ones and the viral origin was demonstrated. After 1970 researches discovered the human

papova group and the identification of high-low risk types of HPV. Nowadays, the vaccine that the Nobel Prize laureate Harald zur Hausen (1936-) developed decreases the percentage of morbidity of cervical cancer worldwide.

V3. YERSINIA PESTIS INFECTION: A TURNING POINT IN MEDICINE

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The Black Death was a pandemic caused by the coccobacillus *Yersinia Pestis*, which accounted for the death of at least one third of the European population between 1347 and 1353. The huge death toll had immense consequences to every aspect of humanity at the time. Society could not provide any help as in disarray, religion was in dispute since priests were dying off as fast as anyone else and for the first time people turned out to medicine, even the Pope issued a decree requiring for the first time, thorough autopsies and dissections of plague victims while some years ago these actions were considered a heavy crime. As a result there was a massive European case study for a disease that rampaged across Europe, but also a huge leap in anatomy and in pathology. This led to the division of internal medicine and surgery as a specialty. In the past surgeons were barbers and craftsmen without any theoretical knowledge, and this changed through practical learning towards the “physician – surgeon”. Consequently that also led to the scientific conflict between practice and theory. Another huge leap was the massive public health measures that cities were forced to apply. Authorities did not let ships to embark to their ports if they came from a possibly infected area for 40 days – where the word “Quarantine” derives from. To conclude, Black Death demolished the status quo of the time and forced humanity, but mostly Europeans, to re-establish the medical approach, the religion practice and ultimately their lives.

V4. THE INFLUENCE OF THE ARCHITECTURE ON THE HEALTH AND LONGEVITY OF THE BALKAN POPULATION

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There is a deep interconnection between the human being and the Universe and this includes both the morphological and the rhythmic correspondences existing between the physical body and the Universe, referring to both the distant Universe and the nearest one. In this context, a journey into the past of human civilization reveals the fact that from ancient times people have paid special attention to vital space, house or temples. As various researches point out, the architecture of our dwelling, of the living spaces, must take into account not only the constructive functional and aesthetic aspects but also other parameters: the place where the house is located, its shape, the orientation, the volume, the organization and the harmonization of spaces, building materials, light and colors. The architecture of the ecosystem in which we live is important to the health of human psychophysiology, to maintain the vital rhythm and energy necessary for life.

V5. WHITE COATS AND EMPATHY: AN INNATE OR ACQUIRED SKILL?

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Empathy or the ability to "feel into" ("einfthlung") is a complex multi-dimensional concept that refers to sharing the feelings of another leading to a direct appreciation of the other. Clinical empathy is a basic component and a key factor in all therapeutic relationships that can highly increase the quality of care. Studies show that empathy is linked to greater patient satisfaction by lowering patients' anxiety and distress, better clinical outcomes, decreased physician burnout and a lower risk of malpractice and medical errors. With such widely acclaimed benefits of empathy, a question arises: are we born with empathy or can it be taught? Neuroscientific research has achieved significant progress in establishing the neurobiological basis for empathy, some studies arguing that mirror neurons are linked to people's capacity to be empathic. On the other hand, research indicates that trainings and courses, as well as educational programs during medical school can improve empathy and that it can be successfully taught, especially if it is embedded in actual experiences with patients. These findings indicate that clinical empathy in primary care helps to improve many aspects of health care practice, for both patient and clinician, and emerges as a challenging field of research with potentially important clinical implications.

V6. EPIGENETIC MECHANISMS SUSTAINING HEALTH AND LONGEVITY

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The aim of the study is to generate awareness concerning preventive measures to sustain health and longevity in the Balkan population, by emphasizing recent proofs from medical research in the field of epigenetics. Materials and methods. Recent articles are reviewed and information is inferred about the influence of human lifestyle on epigenetic mechanisms. All three epigenetic mechanisms (DNA methylation, histone modifications and noncoding RNA intervention) have been investigated in various studies in medical literature. The papers selected analyzed the correlation between epigenetics and nutrition, physical activity and sleeping habits and were published in the last 5 years. Results. Medical practitioners have to continuously update their knowledge for the benefit of their patients. An integrative approach is an advantage for preventing illness and, because epigenetic modifications can be inherited, favorable lifestyle changes are rewarding not only for an individual, but also for the descendants. The DNA methylation pathway is one of the explanations given by nutrigenomics concerning a healthy diet that promotes longevity. Epigenetic markers can be removed when there is no sustained physical activity. Besides in skeletal muscle cells, epigenetic changes were documented in the cells of the circulatory system. Global DNA methylation is peaking during sleep and is lower in the evening. Conclusion. For promoting health and longevity the population of the Balkan region has to be taught what a healthy lifestyle signifies and this can be achieved by learning and understanding the latest discoveries in the field of medical epigenetics.

V8. INTRODUCTION OF INTERPROFESSIONAL EDUCATION FOR HEALTH SCIENCE STUDENTS IN SERBIA

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Introduction. The intention of the Republic of Serbia to fulfill European Union (EU) requirements for the accession to the EU comprise serious efforts to improve the professional competencies of health sciences graduates and to facilitate mobility of health workers. In the field of high education interprofessional education (IPE) for health science students is recognized as very important issue. According to WHO it comprises "when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" (2010). The aim of this work is to present the results and contribution of ReFEEHS (Reinforcement of the Framework for Experiential Education in Healthcare in Serbia, Erasmus+ project) in introduction of interprofessional education course at Serbian Medical/Health science schools. Material and methods. Course design and content creation are based on the experience of 4 EU partner project countries (Bulgaria, Portugal, Hungary and Ireland) and slightly modified. Results and discussion: Within ReFEEHS Erasmus+ project, IPE course was created for undergraduate students of various health profiles (medicine, dentistry, pharmacy and nursing). Four Serbian project partners (University of Belgrade, Novi Sad, Nis and Kragujevac) introduced IPE course in their curricula. It is planned as an elective course and will be applied in the next academic year. Conclusions: Introduction of IPE education course in Serbian universities is great step forward which will improve the quality of health care. IPE as an integral and necessary practice ensures positive outcomes and contributes to patient safety.

V9. THE KNOWLEDGE AND ATTITUDES OF ACADEMIC STAFF IN SERBIAN MEDICAL/HEALTH SCIENCE SCHOOLS TOWARDS INTERPROFESSIONAL EDUCATION

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Introduction. Interprofessional education (IPE) is an important education approach for preparing health professions students to provide health care in a collaborative team environment and better patient care. The aim of this study was to investigate knowledge and attitudes of academic staff in Serbian Medical/Healthscience schools towards interprofessional education. Method. The electronically questionnaire was used to obtain general data (age, gender, academic title, institution, work experience) and data referred to the scale of readiness for IPE (The Readiness for Interprofessional Learning Scale - RIPLS). Results. The total number of completed

questionnaires was 303 from four universities in Serbia. Number of completed questionnaires was 31% and 22.1% for assistant professors and assistants respectively, and 18.5% for associate and 19.1% for full professors. The majority of respondents (85-95%) expressed agreement on the fact that students of all study programs of health professions should acquire teamwork skills during their studies, and that learning in this manner would improve communication among members of the healthcare team, contribute to a better understanding of health problems of the patient, enable a better understanding of future professional tasks, as well as professional limitations and that the remaining benefit for the patient would be higher. The total RIPLS score was (AS=82.26; SD 10.2) which indicates the willingness of academic staff for interprofessional education as a new type of education of future health professionals. Conclusion. This survey indicates that academic staff in Serbian Medical/Health science school is ready to create and share materials and actively participate in interprofessional education.

V10. ACTIVATED PARTIAL THROMBOPLASTIN TIME AND PROTHROMBIN TIME ABNORMALITIES IN PATIENTS WITH CHRONIC LIVER DISEASE

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The aim of the study is to determine the coagulation abnormalities especially activated partial thromboplastin time (aPTT) and relationship between abnormal clotting test and the risk of gastrointestinal bleeding (GI) among chronic liver disease (CLD) patients admitted at two hospitals in Sofia. Materials and methods: Adult CLD patients (112) admitted at Alexandrovska University Hospital and IV Municipality Hospital in Sofia, during 2013- 2017, were included in the study. The patients blood were tested for coagulation abnormalities including prothrombin time (PT), activated partial thromboplastin time (aPTT), platelet count, plasma fibrinogen and d-dimer. Association was seen between the abnormal aPTT and the gastrointestinal bleeding by calculating relative risk (RR) with 95% confidence interval. Results: PT was prolonged in 82% and aPTT was raised in 73% cases of CLD. Both PT and aPTT were prolonged in 65% CLD cases. Approximately 34% CLD cases had an episode of GI bleeding. Relative risk of GI bleeding with abnormal clotting tests in CLD cases were weakly positive for PT (RR = 1.02; 95% CI, 0.49-2.10), negative for Aptt single (RR = 0.83; 95% CI, 0.47-1.45), strongly positive for both PT and aPTT (RR = 1.96; 95% CI, 1.08-3.56). Conclusion: Coagulation abnormalities were profound in CLD. Decrease platelet counts and both PT and aPTT were related with GI bleeding but PT and aPTT separately were not significantly related with GI bleeding in patients with chronic liver disease. There is need of new single marker for early determining the GI bleeding risk.

V11. ACROCHORDONS: PATHOGENESIS AND ASSOCIATED DISEASES

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The aim of the review. Acrochordons, dubbed skin tags, are an outgrowth of apparently normal skin. There's an incidence of about 50% in general population. Skin tags have a high prevalence in obese and diabetic patients, metabolic syndrome and in pregnant women. Literature has few information regarding the mechanisms connecting acrochordons and these type of pathologies. The purpose of this review is to present recent findings regarding its pathogenesis, offering a better understanding of the treatment. Materials and methods. A Scopus and PubMed searches in June 2017 using key words „acrochordon” and „skin tags” limited to the period 2015-2017, using the English language, were performed and resulted 12 articles. Results. 8/12 articles relate acrochordons to obesity, hyperinsulinemia and insulin-like growth factors, familial history, metabolic syndrome. Insulin induces the proliferation of keratinocytes and fibroblasts. Skin manifestations represent an early method to detect insulin resistance. Another article showed the importance of hormones in skin tags, estrogen and androgen receptors being significantly positive in these patients. Skin tags were also found in association with atherogenic lipid profile, acromegaly, Chron's disease, Birt-Hogg-Dube syndrome, an increase in mast cell numbers and TNF- α , making skin traumas a cause for skin tags and they are a risk for cardiovascular problems. Interestingly, recent studies have not focused on the relationship between skin tags and HPV infection. Conclusions. Analyzing the articles we reviewed, we can suggest that acrochordons are not a pathology per se, but they are connected to other diseases that have a bigger impact on the patient's life.

V12. MALIGNANT MELANOMA RELAPSE: A RARE SITE OF METASTASIS

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Introduction. Lung is a rare site of metastasis determined by a malignant melanoma relapse. Case presentation. A 84 year-old man presented for dry cough during the previous six months, in the last 2 weeks with sputum and bloody streaks, fatigability, appetite loss, weight loss (8 kg in six months), and right thoracic twinge. 5 years before, he was diagnosed with left preauricular malignant melanoma, surgically treated, with relapse two years later, treated by chemotherapy and radiotherapy. He was non-smoker, with 32 years dust exposure, and had permanent atrial fibrillation and myocardial infarction sequelae. The thoracic CT scan revealed mediastinal enlarged lymph nodes and right nodular pleural mass. The functional respiratory tests showed a restrictive ventilatory dysfunction (reduction with 65.5% of the vital capacity and with 64.3% of the forced expiratory volume in 1 second). Bronchoscopic examination showed obstruction of the right inferior lobar bronchia, by edema of the posterior wall mucosa in association with an invading tumor. A biopsy with three tissue samples was performed. After bronchial brushing and lavage, 400 ml were collected and sent for cytological and bacteriological examination. The result of the lavage: neoplastic cells with melanocytic pigment; bronchial brushing: rare melanocytes and frequently neoplastic denuded nuclei. Hemostatic treatment was initiated, with a favorable evolution. Conclusions. Oncological patients request multidisciplinary approach and personalized treatment. The particularities of the case presented are the rare site of metastasis during the relapse of the disease.

V13. A COMPLICATED CASE OF PYONEPHROSIS RESULTING FROM NEPHROLITHIASIS

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Introduction. Pyonephrosis is an uncommon disease where pus collects in the kidney, leading to suppurative destruction of the renal parenchyma. Risk factors for pyonephrosis include upper urinary tract obstruction, causing the pus to accumulate within the collecting system of the kidney. This “pus under pressure” is very dangerous because it can lead to a rapid spread of the infection, leading to sepsis. Patients with a compromised immune system increase the risk of pyonephrosis. Case presentation. We present a case of a 74-year-old male patient who suffers from abdominal pain with radiation in the left iliac fossa, inferior member and the genital organs. The patient has a history of essential hypertension, and coronary artery disease. Following a clinical examination, a 10 cm painful tumor formation was observed in the left hypochondriac region. Computer tomography (CT) showed left kidney lithiasis and retroperitoneal abscess, having the left kidney as a starting point. The patient underwent radical unilateral nephrectomy and drainage. Histopathological examination of the the nephrectomy piece, showed coralliform stones incised in the renal pelvis, multiple ablated cystic areas, and purulent content. The patient had a slow favorable evolution, complicated with a positive *Clostridium difficile* infection, for which specific antibiotic therapy was initiated. Discussions. Pyonephrosis is a very serious, life-threatening condition. If it is not diagnosed early, it can worsen rapidly and cause death of the patient with the development of septic shock. Therefore, early recognition and treatment of acute infections of the kidney, especially in patients with suspected urinary tract obstruction, are of critical importance.

V14. CONSIDERATIONS ABOUT THE DELETERIOUS EFFECTS OF ENDOCRINE DISRUPTERS

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New data is offered by the US Endocrine Society that warns about the danger represented by Endocrine Disruptors (EDS) and by the Toxic Substances Control Act about 85.000 chemicals (of which about 10% are EDS). These substances are acting on receptors for: estrogens, antiandrogens, thyroid hormones, PPAR α , retinoids, steroidogenic enzymes, neurotransmitters. Considering that their action represents “a silent epidemic taking away human potential”, generating: IQ loss, intellectual disability, autism, ADHD disorder, cryptorchidism/male infertility and what represent the subject of our presentation: childhood and adult obesity. There is many substances that are considered EDS: industrial solvents, lubricants, plastic substances, phthalates substances used in plastic production, pesticides, fungicides, different pharmaceutical agents (as dietilstilbestrol, as an exemple), heavy metals/metalloids. European Food safety Authority (EFSA) underline the fact that the following are constant presense in our environment: BPA – used to stiffen some plastic food containers, used in aluminium can linings and thermal paper; phthalates – used in food draps, cosmetics, shampoos; flame retardants – used in electronics, furnitures, mattresses. So, these substances represent a real menace because they have

a high persistence (due to their prolonged life time) and they can be transported by water air currents, by migratory animals. In conclusion, obesity medicine must become a new subspeciality because obesity represent a much more complex equation that we thought.

V15. NECESSITY OF SELF-MANAGEMENT SUPPORT FOLLOWING COLORECTAL CANCER TREATMENT

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Many studies have shown that patients with colorectal cancer have to be educated to self – manage their condition and improve the quality of their physical, mental and social life after cancer. Self-management support is broader than health services alone, because it can include support from other cancer survivors, community, online, family, friends, and so on.

The aim of current study is to analyses the patient’s satisfaction of medical treatment and health care, and on this basis to determine the necessity of self-management support following colorectal cancer treatment. Material and methods. The current study covered 315 patients with colorectal cancer. The participants were residents of seven different Bulgarian regions. The applied methods were documentary and questionnaire (anonymous), listing questions referring to the patient’s lifestyle and attitude to the disease. Results and discussion: Of the investigated patients 37.8% esteemed the quality of medical care as good, and only 16.2% affirmed it was excellent. The level of diagnostics and treatment competency was given a good and very good estimation by 64.5% of the respondents and 64.1% gave the same esteem for physicians’ good attitude. Dissatisfaction was revealed referring to psychological counseling activities – a total of 54.6% of the respondents. A relatively small part of the investigated individuals (20%) required discretion concerning their disease state. The non-parametric statistical analysis revealed significant relationships between this specific feature and the relevant questions listed in the questionnaire. Conclusion. The current study established a significant relationship between patient’s satisfaction and the necessity of engagement in self-management support to help for better life quality.

V16. LA PRATIQUE DE LA CHIMIOEMBOLISATION DU CANCER DU FOIE

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Ainsi, actuellement les priorités du traitement du cancer du foie sont les interventions locales par embolisation transartérielle (TAE) et chimioembolisation transartérielle (TACE). But de l’étude. Application de la chimioembolisation dans le cancer du foie. Matériel et méthodes. Des procédures thérapeutiques des tumeurs du foie, transcathéterisme guidé par imagerie, sont les plus couramment utilisés dans la pratique courante, y compris l’embolisation, la chimioembolisation et la radioembolisation. Résultats. Deux patients de 55 et 68 ans ont bénéficié de la technique TACE, après l’évaluation de l’artère hépatique commune par angiographie. Les deux patients avaient l’image CT et/ou RMN avec contraste qui montrait le remodelage vasculaire avant la

chirurgie. Dans notre clinique, l'embolisation artérielle hépatique a été réalisée par ponction de l'artère fémorale en utilisant la technique de Seldinger. Par l'artère hépatique commune, le microcathéter „Terumo" 2,8 Fr. avec le guide inclus, a été placé de manière super-sélective dans l'artère qui alimentait la tumeur et un l'agent de contraste a été injecté avec un débit de 4 ml/s pendant 4 secondes. Pendant la procédure, 7 angiographies ont été réalisées, qui ont enregistré des changements d'image lors des phases artérielles et veineuses. Le cathétérisme supra-sélectif a permis l'injection du mélange mixte (50 ml de lipiodol et 50 mg de doxorubicine) dans la formation. Par la suite patients ont été suivis une fois par mois pendant six mois et les désaccords ont été résolus par consensus. Conclusion. Les images angiographiques ont permis le succès de la procédure par l'absence de complications et l'arrêt du flux vers la formation tumorale.

V17. SOME MEDICO-HISTORICAL AND CULTURAL LANDMARKS IN GERONTOLOGY

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Lately life expectancy considerably extended. Society "geriatrization" requires increased healthcare efficiency, higher social costs, better qualified bioethical principles. Specialty literature reveals that senescence definition and status of the elderly varied in different civilizations over time. Primitive communities removed the old aged, speeding up or provoking their death, or regarded them respectfully. Christianity took care of underprivileged elderly protected in gerontocomi, monasteries or hospitals. Modern secular and religious societies institutionalized old persons in shelters, asylums, health homes. Since the beginnings of world geriatrics and gerontology, the Romanian medical school contributed to this field genesis due to outstanding scientists: Gheorghe Marinescu focused on neuronal senescence; Constantin I. Parhon concentrated on age biology in relation to neuroendocrine functions, founding in Bucarest the first specialized Institute (1952), later coordinated by Ana Aslan, creator of antiaging remedies, complex therapies and a national geriatric network. According to statistics, geriatrics frequently encounters problems concerning medical body's attitude, but also prostheses, transplants, euthanasia, palliative therapies, biotechnologies implementation aiming at delaying aging and prolonging life. Senescence alters discernment, potentiates depression, suicidal tendencies, disrupts biological rhythms. In parallels to financial support, higher pensions - correlated to the economic level -, psychological and religious assistance, doubled by affective, especially family support, are important details, the elderly facing psychosomatic fragility besides the consciousness of irreversible transformations, social marginalization, exclusion, or abandonment. Upgrading humanitarian traditions, contemporary society has to further ensure distributive justice, autonomy and life quality in the elderly, an important cultural dimension healthcare systems and medical deontology should equally promote.

POSTERS

P1. A NEW CASE OF SCHNITZLER SYNDROME IN BULGARIA - A CASE STUDY

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Aim. The aim of the study is to describe the course of the disease progression of the third patient with Schnitzler syndrome in Bulgaria. **Methods.** Follow-up data regarding laboratory investigations and skin histology were taken for the medical records of the patient for the period 2005-2016. The levels of IgM, erythrocyte sedimentation rate and C-reactive protein (CRP) were tested. At the end of 2011 the patient was diagnosed with Schnitzler syndrome. **Results.** The case of a 74-year old woman with a long history of chronic urticaria, arthralgia and fever is presented. The time course of the IgM, CRP, ESR were presented. The mean values of tested parameters are: for IgM $13.8 \text{ B} \pm 2.19 \text{ g/l}$, for ESR $48.6 \text{ B} \pm 14.46 \text{ mm/h}$ and for CRP $29.8 \text{ B} \pm 7.34 \text{ mg/l}$. The use of anti-inflammatory drugs and corticosteroids resulted in the relief of arthralgia and fever. **Conclusion.** Corticosteroids in low doses should be prescribed in order to control some main symptoms. The patients should be monitored because of a higher risk of corticosteroid-induced osteoporosis and other side effects.

P2. A POST MORTEM OPEN DRAIN DRILLING OPERATION IN 18TH CENTURY: THE CASE OF JOHN DONELLAN'S TRIAL FOR MURDER

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Background. Captain in the British army, Irish John Donellan (1737/1738-1781), was the son of Colonel Donellan, who had certainly distinguished himself as a good soldier, for not only had he been much wounded in the service, but also for gallantly behaving. However, during his career, he had condescended to receive "presents" from some black merchants, for which he was tried by a court martial, and cashiered. In June 1777, he had married Miss Boughton. About 3 years later, he was accused for the wilful murder of Sir Theodosius Edward Allesley Boughton, his brother-in-law. Although Donellan testified that the baronet "died in convulsions", he was immediately committed for trial at Warwick. **Method-Objective.** We have conducted a thorough search in international bibliography with references for Donellan's trial. Our study demonstrates how the Scottish Surgeon John Hunter performed a post-mortem autopsy introducing forensics instead of a theoretical approach during a trial. **Results.** On August the 29, 1780, Baron Sir Theodosius Boughton (1760-1780), after drinking his night tranquilizer drug, he dropped suddenly dead with convulsions. A few minutes later his mother found him with "turned eyes", a "mouth drop" with an angle, and "foams coming out of his mouth cavity". Even though initially the suspicions led to a potentially wrong prescribed medication, baronet's wife accused the husband of his sister, Captain John Donellan, who was to inherit the family fortune, for poisoning Theodosius with hydrogen cyanide. Two experts of the era, the physician Dr Rattray and the apothecary Mr. Powell, both testified that it was indeed a death by poisoning. However, famous Scottish surgeon

and anatomist John Hunter (1728-1793) after a post-mortem autopsy he sought, proved the cause of death. A ruptured aneurysm of the brain was in his opinion to be blamed. Conclusion: Donellan unfortunately was launched into eternity by being publicly hanged. Hunter's scientific testimony had not been taken under consideration. His approach was implemented in an era when the Justice system was rather immature to accept forensics in the court of justice.

P3. TERATOGENESIS IN GREEK ANTIQUITY, A "BAD-GENETIC" IMBROGLIO IN NEWBORNS' ANATOMY

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Background. In Ancient Greece, a non aesthetic birth could not have been tolerated, and the perception of newborns rejection was at the era an acceptable extreme measure. Later on, during the time of the Byzantine Empire, the same perception was still in valid. Both ancient Greek and Byzantine physicians believed that "teratogenesis" (Greek: τέρας, teras=monster and Latin: genesis=birth) was a phenomenon caused by a bad sequence of the genetic material. In ancient Greece, dysmorphic newborns were considered as abnormal beings. Method-Objective: During our study, we have performed a thorough search in Greek texts (ancient Greece and Byzantium) using the TLG database, aiming to unearth fragments and testimonies on the subject of teratogenesis. Results: Empedocles was the first to introduce the opinion of the "bad sperm". A huge quantity or the lack of it, the abnormal movement, the excessive division, and in general any sperm's deviation could cause a "teratogenesis". Democritus suggested that "terata" were a result of a simultaneous entrance and mix of two offspring (gusts of sperm) in the uterus. Strato of Lampsacus, believed in the interaction of "pneuma" (spirit) on genetic material. According to Aristotle "teratogenesis" was simply a coincidence, while Galen recorded these newborns as "unnatural beings, a nature's failure". Alexander Aphodisius mentioned the ataxia of the genetic material, and finally Themistius believed in sperm's "cooling". Conclusion. The distorted sperm, the aberrant genetic material, the bad genes were in antiquity, and still are today, the reason for the birth of a "teras", the main cause for the depiction of such anatomo-morphological features.

P4. THE TERM "CARDIOLITH" AND ITS SIGNIFICANCE IN 19TH CENTURY MEDICAL LITERATURE

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Background. The term "cardiolith" from the ancient Greek words for heart "cardia" and stone "lithos", was widely used in 19th century to describe formations inside the heart. According to

cardio surgeons, cardioliths and concretions were quite common, and originated from the blood, polypoid growths, clots, microorganisms, or tumours. They could enter the substance of the heart, or any of its chambers. Method-Objective. A thorough search was transacted in the Medline/Pubmed, Scopus, Google Scholar and Google books databases with the word "cardiolith" as the key-term. Our study presents the history of cardioliths as a pathological entity from 1700 to the 19th century cardiology. Results. A plethora of physicians and surgeons described formations that could enter any heart chamber after having been formed in any portion of the cardiac substance and at once become foreign bodies to cause an embolus, in most cases a fatal one. Goodwin JW was the first physician to record during 1700 a case of polyform concretion of the heart and at the same time to report several cases of stones in it. Vernon H in 1826 gave a lengthy report of a case of obstruction to the passage of blood through the right auriculo-ventricular opening of the heart from a fibrous concretion, which was entangled under the tendinous cords of the tricuspid valve. Bricheateau in 1834, Hache in 1832, Aubrey in 1836, Hardy in 1838, Hughes in 1838, Bouilland in 1839, Sprague in 1848, Garstang in 1852, Barbieri in 1852, Richardson in 1855, Blondet in 1857, Hausley in 1858, Ogle in 1862, Faure in 1864, Monard in 1867, Barbancy in 1869, Fayrer in 1870, Fayrer in 1873, Lawson in 1873, Baker in 1874, Hattute in 1875, Rendue in 1875, and Chaffey in 1887, all were parts in a scientific chain by describing such formations. Vegetable ferment, blood alone, tuberculosis, inflammation, urethral fever and diphtheria were implicated as the causes for cardioliths' schematization. Conclusion: Although a series of descriptions concerning heart stones with various origin existed for more than two hundred years, it is unclear who introduced the term. The first paper using it was Sheridan Delépine's "Description of a Cardiolith" in 1890. Surprisingly the ancient Greek word "thrombus" (clot) was not used at all, and instead a more descriptive term was chosen. Cardiolith as a medical diagnosis is now very rarely used (calculus cardialis), yet mostly due to its naming made an impact during 19th century in cardiology.

P5. THE LIFE AND MEDICAL KNOWLEDGE OF CONSTANTINE THE AFRICAN (11TH CENTURY A.D.)

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Constantine the African was a physician who was born in Carthage and spent a period of his life in North Africa, in Eastern countries (Arabic countries, Chaldea, Persia, India, Egypt) and in Italy. Among the various locations of residence in Italy, he was at the Regio as secretary to the Constantine IX Monomachus who reigned as Byzantine emperor from June 11, 1042 to January 11, 1055. In Sicily he worked as secretary to the Duke of Robert Guiscard and professor at the Schola Medica Salernitana in Salerno. He converted from Islam to Christianity and the last period of his life was at the abbey of Monte Cassino by the Saint Benedict as a Benedictine monk. He studied various languages and his vast opus comprised translations of manuscripts from Arabic and Greek to Latin. Those include, inter alia, the medical works of Ali Ibn Al Abbas Al Majoussi, Razes, Ibn al-Jazzar, Ibn Imran and Ibn Suleiman, as well as ancient greek medical texts, especially by Galenus. His most remarkable medical works were on the: theory of medicine, practice, melancholy, pulse urine and food regime, anatomy, physiology, etc. The majority of the

translated textbooks are based nowadays in various libraries in Italy and it is worth mentioning that they were widely used in Europe from the middle ages up to the seventeenth century.

P6. A PARTICULAR CASE OF HYPOKALEMIA AS A CAUSE OF CARDIOPULMONARY ARREST

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Introduction. A 79 year-old patient was admitted to the Emergency Department of Constanta County Hospital „Sf. Apostol Andrei” in cardio-pulmonary arrest. Case presentation. One week before, he started to cough and develop fever, which reached a maximum of 38.5 C. The patient had a known history of paroxysmal atrial fibrillation, permanent cardiac stimulation, irritable bowel syndrome, malabsorption syndrome and had undergone a biological aortic valve replacement. Considering the history of the patient, after he was successfully resuscitated and stabilised, an echocardiography was performed, along with several blood tests (ASTRUP, CBC, Coagulation tests). 24 hours before the event, an ECG and blood pressure ambulatory monitoring were performed, in order to evaluate the status of the aortic valve and the stimulator. Both were functioning properly. We took into consideration the following differential diagnoses: endocarditis, dysfunction of the cardiac stimulator, pneumonia, electrolytical imbalance and enterocolitis. The following test results (K 2.5 mmol/L, lactate- 3.71 mmol/L, WBC 19,5x10³ µL, Troponin T 53 pg/mL) confirmed the primary cause of the arrest: severe hipopotasemia and dehydration, due to acute diarrhoeal disease (positive cultures for *Clostridium Difficile*). Cultures taken from the cardiac valves were negative. Conclusions. Even though patients with permanent cardiac stimulation are at risk to develop malignant arhythmias due to a dysfunction of the pacemaker or new ectopic sites of discharging electrical stimulus, it is of utmost importance to consider also electrolyte imbalance and to prevent and treat any infectious factor.

P7. LE SOMMEIL OU NON LE SOMMEIL A UN EFFET SUR L'ACTIVITÉ DE LA MALADIE CHEZ LES PATIENTS ATTEINTS DE LED ET MII?

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But de l'étude. L'évaluation de la fréquence des troubles du sommeil et l'analyse des facteurs prédictifs qui influencent le sommeil chez les patients atteints de LED et MII. Matériels et méthodes. Nous avons analyser 90 patients atteints de LED, de nouveaux critères de classification SLICC, 2012 par activité de la maladie SLEDAI. Le groupe de contrôle était 62 patients atteints de MII des critères Bohan et Peter 1975, l'activité MDGA (VAS) et les troubles du sommeil par PSQ dans les deux groupes. Résultats. L'âge moyen des patients atteints de LED et était 45,11 ± 12,92 PFI (i.v.18-67) 46,08 ± 14,12 (i.v.18-72) ans, la prévalence de sexe féminin dans les deux groupes. La durée de la maladie varie d'un mois à 437 mois (137,08 ± 1,6) dans le LED et 3-409 (102, 12 ± 2,8) mois dans les MII. La moyenne de PSQ était de 10 ± 4,23

($12,0 \pm 7,12$) en LED vs MII ($p = 0,0001$). Rémission a été dans 6,7%, faible activité à 30,0% des patients et 63,3% - forte activité, étant un indice réservé. Dans le groupe MII a prévalu le faible activité – 74,2%, et activité était seulement de 25,8%. Les patients des deux groupes administrés glucocorticoïdes à des doses similaires de 8,9 mg / jour lupus et 10.6 mg / jour MII ($p < 0,005$). Conclusion. Les troubles du sommeil sont fréquents chez les patients de maladies du tissu conjonctif, mais l'activité et la durée de la maladie étaient des facteurs prédictifs de l'insomnie.

P8. THE RATE AND REASONS FOR HOSPITALIZATIONS IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Objective. To determine the factors and rate of systemic lupus erythematosus (SLE) hospitalization in Moldova lupus study. **Methods.** A prospective study on systemic lupus erythematosus patients which fulfilled SLICC 2012 classification criteria, who were consulted by the rheumatologist from January to December 2016. **Results.** There were a total of 88 SLE patients who met the inclusion criteria during this period, resulting in 68 hospitalizations. Average age at diagnosis was 33.4 years (s.d. 11.3) and 43.3 years (s.d. 12.9) at hospitalization. Twenty patients (22.8%) from the study group were not hospitalized. The more common causes of hospitalizations were exacerbations 34 patients (38.6%), secondary antiphospholipid syndrome and thromboembolic events - 21 patients (23.8%), complications of the disease: osteoporosis, secondary arterial hypertension, infections - 9 patients (10.2%) and Sjogren syndrome/vasculitis – 4 (4.6%) patients. Notable, that the least common cause of hospitalizations was infection – only 2 (2.3%) pts. Mean duration of hospitalization was 7.7 (range 5 -11) days. In intensive care unit 2 (2.3%) patients were admitted, mortality was low, only one patient died. The annual rate of hospitalizations for SLE was estimated as 0.77 patients per year. The rate of hospitalizations in early lupus (disease duration till 24 months) was 1.06 vs 0.58 in non-early lupus patients (disease duration more than 24 months). **Conclusion.** In our cohort, lupus flare, thromboembolic events and antiphospholipid syndrome, remain the top reasons for hospitalizations. The rate of admission in early lupus was higher than in non-early patients.

P9. RATE OF INPATIENT ADMISSIONS IN MOLDOVIAN MYOSITIS COHORT

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The aim of the study. To estimate the rate of admission to hospital the patients with idiopathic inflammatory myopathies (IIM) in moldovian cohort. **Materials and methods:** We performed a cross-sectional study from January – December 2016. The patients included in the study fulfilled the Bohan and Peter criteria for IIM. **Results.** Thirty-four patients were enrolled in the study, of which resulted in 27 hospitalizations. The mean age at diagnosis was 44.6 ± 14.9 years versus 52.9 ± 12.5 years at the time of hospitalization. Twelve (35.2%) patients were not hospitalized during last 12 months. The most common reasons for admission to hospital were recurrence of the

disease – 10 (29.4%) patients, myalgia – 6 (17.6%) patients and complications (osteoporosis, avascular necrosis) in 5 (14.7%) patients. The less common causes for hospitalizations were infection and pain, both in 3 (8.8%) patients. The mean hospitalization period was 7.9 (range 4-14) days. We determined the annual rate of hospitalizations for IIM was 0.79 patients per year. The hospitalization rate in patients with disease duration less than 24 months was 0.81 versus 0.7 per year in patients with disease more than 2 years. During study period there was no death. Conclusion. In moldovian cohort of patients with IIM the rate of hospitalization was 0.79 patients per year, flares being the most frequent reason.

P10. GENERALIZED EDEMA IN A PSORIASIS PATIENT

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The aim of the study. Psoriasis is a chronic autoimmune disease of the skin. Epidermal hyperproliferation is considered to originate from premature keratinocytes maturation, induced by inflammatory cytokines. Psoriasis is often associated with extracutaneous manifestations (arthritis, metabolic syndrome, etc.), one of them is the moderate to advanced chronic kidney disease, independent of traditional risk factors. The aim of the study was to analyze pathogenesis and treatment of generalized edema as a rare complication in a psoriasis patient. Subject and Results. A 60-year-old male patient was admitted to the outpatient care due to acute worsening of plaque psoriasis. Patient's skin was diffusely covered with exfoliating scales on irregularly shaped erythematous background, on most of the body surface (trunk, extremities, hands and face). Generalized edema was present with accompanied hypotension (90/50 mmHg), tachycardia (120 b/min), oliguria (<400ml/24h), without proteinuria. Blood analysis showed total protein level of 41g/L, albumins 18g/L, hypernatremia (166mmol/L). Serum creatinine and blood urea nitrogen were in the normal range. Conclusion. Erythrodermic psoriasis is a rare type of psoriasis that mostly appears as a complication of unstable plaque psoriasis. Although the first suspicion for edema pathogenesis in this patient was nephritis, laboratory findings showed it was not the case. The hypoalbuminemia, caused by significant protein loss through the inflamed skin, together with increased sodium retention were the key factors for generalized edema development. Therapy consisted of rehydration, use of hyperconcentrated albumin solutions, topical and systemic treatment of disease, as well as antibiotics.

Acknowledgements: The study is supported by the Project no. 41018 of the Ministry of Education, Science and Technical Development of the Republic of Serbia.

P11. PREVALENCE OF FACTOR V G1691A MUTATION IN SOUTHEAST SERBIAN POPULATION

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The aim of the study. Factor V (FV) G1691A mutation (Factor V Leiden) makes the protein resistant to the inactivation by activated protein C, resulting in enhanced thrombin production and leading to the increased risk of thrombosis. The prevalence of G1691A mutation is estimated to be around 3-15% in European Caucasians. Materials and methods. Polymerase chain reaction with allele specific primers was used for FV G1691A mutation analysis. We analyzed total of 144 healthy blood donors, who had no personal or family history of venous thromboembolism. The study was approved by the local Ethics Committee. Results. The FV genotype frequencies of GG, GA, and AA were 0.972, 0.028, and 0, respectively; the frequency of FV G allele was found to be 0.986, and FV A allele was 0.014. The mutation carrier frequency is 2.8%. Conclusions. Our results show that the G1691A mutation frequency is 2.8% in Serbian population, which responds to the frequencies of the Eastern European populations. We can expect higher frequencies in patients with a history of venous thrombosis, because Factor V Leiden is one of the most important predisposing genetic factors in thrombosis development.

Acknowledgements: The study is supported by the Internal Project no. 3 of the Faculty of Medicine University of Nis, Serbia; and the Project no. 41018 of the Ministry of Education, Science and Technical Development of the Republic of Serbia.

P12. A BIBLIOMETRIC ANALYSIS OF THE MEDICAL HISTORY-RELATED PUBLICATIONS FROM BALKAN COUNTRIES (1991-2016)

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This study seeks to observe Balkan countries' contributions to the medical history literature in the last 25 years. A targeted search was conducted for medical history-related publications in the Web of Science Core Collection for the period 1991-2016. Findings were refined to those submitted from Balkan countries, then sorted according to country, type of research, language, year of publication, research area, etc. A total of 822 publications were found meeting the criteria, which were written by authors from Greece (46.0%), Turkey (21.2%), and Croatia (15.2%) in particular. Articles (62.5%) constituted the great majority of these publications which were written mostly in English (84.9%). There has been a drastic increase in Balkan countries' contributions to the medical history literature in the last decade. Future collaborations among medical historians from all Balkan countries might be helpful to make medical history much more visible in literature.

P13. NONINSULIN HEALTH TECHNOLOGIES FOR TREATMENT OF DIABETES TYPE 2: LITERATURE REVIEW AND META-ANALYSIS

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Aim. Diabetes imposes a large economic burden on the people with diabetes and their families, the global health-care system and the wider global economy which is expected to continue. The purpose of this study is to perform a systematic analysis of published data for health technology assessments for treatment of DMT2, modeling expenses and health benefits based on indirect comparison. To validate results by comparing with published relevant HTA. Methods: A

comprehensive literature search of MEDLINE and Scopus databases was conducted. Both databases were searched using the terms: diabetes, DPP4 inhibitor, SGLT2 inhibitor, thiazolidinedione, GLP1 agonist. Literature search covers the period 2006-2016. The metaanalysis was performed to compare different therapeutic alternatives. Results. More than 1700 studies were initially identified, of which 64 satisfied our inclusion criteria. These were categorized as follows: 12 compared DPP4i with other alternatives, 33- for GLP-1ag.

P14. ROMA COMMUNITY-BASED HEALTH PROMOTION IN KNEJA (MIDDLE NORTH BULGARIA)

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Introduction: The concept of health promotion (HP) is hardly necessary to be implemented in Roma population in Bulgaria. Roma students from Medical University of Pleven and their mentors regularly organized HP programs in region of Pleven. The aim of the program in last (2015th) year was to promote people's health within their everyday settings and to assess risk factors for cardiovascular diseases (CVD) among elderly people. Methods: In May 2015th a HP program in Roma community in Kneja was organized. It was developed in collaboration with local Roma mediator. The research methods were elaborated together with all Roma students. "Stop and checkup your health" was the slogan of campaign. Additionally paper based information for risk factors of CVD was provided to participants. Results: Already from the beginning of the campaign Roma citizens were informed and involved through the posters placed in public places. The medical team collaborated with citizens in the whole process, from analysis, planning and implementation of HP activities. From entire Roma community 59 people, predominantly women (64.4%) participated in a program. Around 40% of them were with primary level of education and 12% with no education. Unemployed participants were 40%. In process of participation of the people the personal Body Mass Index, blood pressure and blood sugar were measured. Conclusion: It was observed a high acceptance of the participative program in Roma community. To provide sustainability HP program is going to continue through organization of the next HP activities by residents in the same city Roma students.

P15. PERIPHERAL NERVOUS SYSTEM INJURIES IN WORKING CONDITIONS WITH FORCED SITTING POSITION

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The aim of the study is to improve the diagnosis, treatment and prevention of peripheral nervous system damages in working conditions with forced sitting position. The subject of the study is 60 persons hospitalized in the Department of Occupational diseases, University Hospital - Pleven, in the period 2015 -2017. The occupational risk of the investigated persons reduces systemic

overvoltage of peripheral nervous system under conditions of forced sitting position. Clinical, laboratory, neuro-physiological and imaging diagnostic methods have been used. Conclusions and recommendations have been made for the prevention of work-related injuries of peripheral nervous system.

P16. SOME PROBLEMS OF GENERAL MEDICINE IN BULGARIA

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The primary care level is responsible for providing medical care to a greater part of the population than any other care level. The quality of primary health care depends on the availability of a sufficient number of well-trained general practitioners. This study aims to investigate the views of medical students about the usefulness and effectiveness of their training in general medicine and their wishes to work as GPs in Bulgaria after their graduation next year. Material and methods: The study used a self-administered anonymous questionnaire includes 70 students. The results showed good satisfaction of respondents of the course of education. But the practical work as GPs is unattractive for future doctors. The reluctance of students to work as a general practitioner is related to the large share of bureaucratic work, limited opportunities for high-tech medical procedures, low payment and low prestige. Conclusion: Most of the respondents think that work as GPs is unattractive and their plans for the future specialization except the specialization in General Medicine. This put the question for existence of enough specialists in this field in the country after a few years.

P17. HUMAN PAPILLOMAVIRUS DETECTION USING IN SITU HYBRIDIZATION IN HISTOLOGICAL SAMPLES ON OROPHARYNGEAL AND LARYNGEAL CANCERS

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Objective. To detect high risk human papillomaviruses (HR-HPVs) in histologic specimens from patients with oropharyngeal and laryngeal cancers by using In Situ hybridization (ISH). **Material and Methods.** In this study we describe the results of ISH. It is used INFORM HPV III Family 16 Probe for high risk HPVs (HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, and 66) (VentanaB®). Histological samples were identified from the Department of Pathology database. The test was interpreted following the manufacturer's guidelines. By using positive and negative likelihood ratios, we attempted to identify any predictive role of ISH testing alone for the development of cancers. **Results.** Twelve patients were operated from laryngeal (six), hypopharyngeal (one), glottis (four) and tongue (one) carcinoma. Mean age of patients was 61 years and men predominate - 10 (83%). All cases were histologically confirmed as squamous cell carcinomas of varying degrees of differentiation. Papilloma virus infection with high risk oncogenic types of HPV was determined in 41.6%. There was no relationship between the site of the pathological process and the viral detection. HPVs affects both males and females. **Conclusion.** High-risk Human papillomaviruses (HR-HPVs) are important cause of oncogenesis. It is recommended to

use ISH as additional the diagnostic method for laryngeal and oropharyngeal cancers. ISH is a useful tool for ancillary molecular testing of HPV infection.

P18. STUDY OF P16 EXPRESSION AND IN SITU HYBRIDIZATION ASSAY FOR DETECTION OF HPV DNA IN TISSUE SPECIMENS FROM PATIENTS WITH CERVICAL ADENOCARCINOMA

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Objective. To investigate the expression of p16 and to detect high-risk human papillomaviruses (HR-HPVs) by using In Situ hybridization (ISH) in histologic specimens from patients with cervical adenocarcinoma. **Material and methods.** Twenty-three cases of cervical adenocarcinoma were collected and evaluated by light microscopy, immunohistochemistry for p16 and used ISH in histologic specimens on patients with cervical adenocarcinoma. Immunohistochemical studies were performed in Immunohistochemical laboratory of Alpha Medical Center Bratislava, Slovakia with p16 antibody. In Situ hybridization were performed in Department of Pathology, Medical University-Pleven, Bulgaria. **Results.** The following histological variants of cervical adenocarcinoma were described and founding results from the study respectively: usual-10 (44%), all p16 positive and four ISH positive; endometrioid-4 (17%), all p16 positive and three ISH positive; adenosquamous-4 (17%), all p16 positive and one ISH positive; villoglandular-3 (13%), all p16 positive and two ISH positive; mucinous signet-ring cell adenocarcinoma-2 (9%), one of them p16 positive and the two ISH positive. Positive for both methods were 12 (52%) of the samples tested. **C onclusion.** Human papillomavirus (HPV) is considered the important cofactor in the development of cervical adenocarcinomas.

P19. TREATMENT OF OCCUPATIONAL-RELATED DISEASES OF THE LOCOMOTORY SYSTEM AND THE PERIPHERAL NERVOUS SYSTEM

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The aim of this report is to present a collaborative study of the Physical and Rehabilitation Clinic and the Department of Occupational Diseases of University Hospital Pleven, Bulgaria, regarding the therapeutic approach in patients with carpal tunnel syndrome and median nerve neuropathy, both of which caused by excessive strain during labour activities. **Methods and materials.** Object of the examination are 45 patients (33 female and 12 male aged 28 to 60), who were admitted in the Department of Occupational Diseases in a time period from 2015 to 2017. The patients were treated collaboratively with the Physical and Rehabilitation clinic. Clinical, laboratory, electrophysiological and imaging diagnostic methods were applied. Medical and physical treatments were conducted. **Results and discussion.** A positive effect from the treatment was observed in 32 of the patients. The analysis of the treatment results proves the excellent response to the applied treatment in ourpatients.

P20. SERUM CONCENTRATIONS OF METALLOPROTEINASE-9, -13 AND TIMP-1 IN ANOVARIECTOMIZED WISTAR RAT MODEL OF OSTEOPOROSIS

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Introduction. Osteoporosis is a disease characterized by decreased bone mass density (BMD) and destruction of the microarchitectonics of the bone structure. This leads to increased bone fragility and risk of fracture particularly of the hip, spine, wrist and shoulder. Osteoporosis is known as “The Silent Epidemic of the Century” because bone loss occurs without symptoms. Altered ovarian function is one of the most common cause of osteoporosis. Indicators for altered bone homeostasis are the changes in serum levels of matrix metalloproteinases (MMPs) and their tissue inhibitors (TIMPs). **Objectives.** The aim of the present study was to determine the activity of alkaline phosphatase (ALP), MMP-9, MMP-13 and TIMP-1 in serum of ovariectomized rats. **Materials and Methods:** An experiment was performed on 35 female Wistar rats at reproductive age - 2 months divided into 2 groups: group 1 (G1) - 20 animals were sham-operated (sham) and group 2 (G2) - 15 of which were ovariectomized (ovx). **Results.** The results showed the values of ALP, MMP-9, MMP-13 and TIMP-1 in rats of G2 were statistically significantly increased compared to G1 ($p < 0.05$). **Conclusion.** The serum activity of ALP, which is a marker for bone formation, is increased in OVX-induced osteoporosis. Significant increase levels MMP-9 in G2 despite the high levels of TIMP-1 confirm the thesis that it is a marker for osteoclast activity.

P21. THE ROLE OF NEUTROPHIL GELATINASE ASSOCIATED LIPOCALIN AS A NOVEL DIAGNOSTIC AND PROGNOSTIC BIOMARKER IN PEDIATRIC PRACTICE

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The aim of this study is to investigate the using of the neutrophil gelatinase associated lipocalin (NGAL) as a novel diagnostic and prognostic biomarker in pediatric practice. **Material and Methods:** We made a review of the published scientific articles on this theme during the last two decades. **Results:** NGAL is a glycoprotein strongly expressed by neutrophils, by macrophages, by the epithelial cells of respiratory system and small intestine, by endothelial cells. It is also present in breast ducts, in kidney, in thymus, in prostate, in liver, in pancreas, in adipose tissue, in bone marrow. NGAL expression is completely absent from the normal brain, heart, spleen, testes, ovary, colon and skeletal muscles. Increased expression of NGAL was detected in many inflammatory, autoimmune, metabolic and malignant diseases. NGAL has been utilized as a rationale to detect early changes and help to make prognosis in the patients during these diseases, because its blood concentration rises in dose-dependent manner. The most of published studies were based on the data of experiments with animals and adult humans. We found scanty information for use of NGAL determination in children only with asthma, sepsis and kidney diseases. Among benign diseases early increased NGAL level in the blood and the urine has been

extensively studied in children with acute kidney injury, but determination of this indicator is not yet a routine practice. Conclusion: More clinical investigations must be performed in children to establish the benefits of use of NGAL as a novel diagnostic and prognostic biomarker in pediatric practice.

P22. IMPACT OF CANDIDAL INFECTION ON HUMORAL IMMUNITY IN CHILDREN WITH TYPE 1 DIABETES

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Aim. The aim of this study is to evaluate the impact of genital candidiasis (GC) on serum immunoglobulins (Ig) and complement fraction 3 (C3) in diabetic children (T1D) and its association with diabetes duration and metabolic control. **Material.** 101 children at the age of 6 to 18 years were divided in two groups: “ Ist group: 71 children with T1D, contained two subgroups “ with and without GC; IId group: 30 healthy controls. **Methods:** Turbidimetry analysis for determination of serum IgA, IgM, IgG and C3 were performed. Glycated hemoglobin (HbA1c) was used for assessment of metabolic control of T1D. **Results.** Serum levels of IgG (1031B±312 mg/dL) and IgA (IgA 172B±77mg/dL) in diabetic children were significantly lower than those in controls (IgG 1168B±218; IgA 208B±69 mg/dL) (p=0,03; p=0,029). Mean levels of IgM and C3 in T1D were within the lower part of the referent limits, but non-significantly lower than those of control group (p>0,05). The mean serum levels of the immunoglobulins in diabetic children with candidiasis were non-significantly decreased than those without infection (p>0,05). Only the serum levels of C3 in T1D associated with GC (mean 127,95 mg/dL: Q1 99,95; Q3 146,15 mg/dL) were significantly higher than in diabetic patients without candidiasis (mean 108,5 mg/dL: Q1 93,65; Q3 122,75 mg/dL) (p=0,04). No significant correlation between studied immunological parameters, diabetes duration and metabolic control was found. **Conclusion.** Despite of lower levels of IgG and IgA found in diabetic children, increased serum levels of C3 in cases with candidiasis supposes that patients with T1D have adequate immune response.

P23. EFFECT OF NUTRITION ON THE DEVELOPMENT OF COPPER DEFICIENCY IN CHILDREN WITH IRON DEFICIENCY ANEMIA

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The aim of the study was to examine the effect of nutrition on the development of copper deficiency in children with iron deficiency anemia (IDA) from 2 to 24 months of age. **Materials and methods:** Study population consisted of 35 children with IDA, categorized into two age groups: 2-12 months of age (G1; n=22) and 13-24 months of age (G2; n=13). Diet was studied through interview. IDA was defined as hemoglobin (Hb) < 110 g/L, mean corpuscular volume below two standard deviations (2SD) of the distribution mean for the respective age, and transferrin saturation < 16%. Serum copper concentrations were determined spectrophotometrically. Associations between variables were analyzed by logistic regression.

Results: Assessment of nutrition revealed relatively high proportions of children predominantly fed on unmodified cow's milk with scarce or absent intake of meat, eggs, and vegetables among the children with IDA in both age groups: 31.82% in G1 and 23.08% in G2. Significant part of children in G1 (63.64%) and 38.46% of children in G2 exhibited serum copper concentrations below the lower limit of the reference range (<11.0 Ojmol/L). There was an association between low serum copper level and predominant cow's milk feeding ($p=0.0086$), because children who had been predominantly fed on cow's milk had a greater risk of being copper deficient (OR 13.5; 95% CI: 1.47-123.74). Conclusion: Predominant feeding on unmodified cow's milk has a significant impact on the development of copper deficiency in children with IDA.

P24. ECONOMIC BURDEN OF DIABETES COMPLICATIONS IN BULGARIA

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Aim of the study. Prevention, treatment and monitoring of complications is important part of diabetes therapy. Many patients have more than one complication, raising the total cost of diabetes therapy. The aim of the study is to estimate costs of diabetes complications in Bulgaria from the point of view of the health insurance fund and patients. Materials and methods. Macrocosting approach for most frequent complications was applied. Patients were divided in groups depending on type of complications occurring. Data for the prevalence of diabetes complications were gathered from the diabetes registry. Cost of health care resources was retrieved from the national framework contract for health care services and from the prices registry for medicines. All costs are valid for 2015. Results. The most frequent complication is hypertension. Cost per complication is varying between 1000 to 2300 BGN. The average costs for medicines paid per patient according to reference price per DDD for CV complications varied from 16.48 BGN for statins to 992 BGN for antiagregants therapy. Average costs of treatment of painful neuropathy is 84.11 BGN, retinopathy is approximately 1460.75 BGN, end-stage renal disease is 69.52 BGN per patient, while using of antibiotics for diabetic foot is 1,38 BGN per patient. Conclusion. The high costs for retinopathy and some CV complications per patient influenced in a greater extend the cost of therapy. Patients have high co-payment. The introduction of monitoring and prevention programs could reduce costs and decrease the economic burden for patients.

P25. CLINICAL IMAGE: ERYTHEMA NODOSUM IN THE EMERGENCY DEPARTMENT

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The aim of the study was to evaluate clinical presentation and causes of erythema nodosum in the emergency department. Materials and methods. Erythema nodosum is an acute erythematous eruption with nodules usually limited to the lower legs. The condition is characterized by a hypersensitivity reaction. Clinical diagnosis was followed by lab tests, X-rays, ultrasonography for positive and differential diagnostic. Results. A 68-year-old women presented to the emergency

department with mild fever, poliarticular, painful eruption with poorly defined red nodules. She had a medical history of acute respiratory disease several days before presentation. Lab tests showed leukocytosis, elevated erythrocyte sedimentation rate. Chest X-ray: cardiomegaly, left lower lobe opacity. Abdominal ultrasonography: vesicular lithiasis. Differential diagnoses were made between infections, drugs, lymphatic cancer, enteropathies, rheumatic disease, sarcoidosis. Antistreptolysin titer was normal. Sputum culture: group D Streptococcus. Broad-spectrum antibiotic treatment and symptomatic drugs has improved the condition. The nodules healed in 2 weeks. Conclusion. Erythema nodosum is commonly a self-limited condition with infection as causal agent. Attentive physical examination leads to rapid diagnosis and favorable prognosis.

P26. CLINICAL IMAGE: LYMPHEDEMA IN THE EMERGENCY DEPARTMENT

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The aim of the study was to evaluate the clinical presentation and the management of lymphedema in the emergency department. Materials and methods. Lymphedema is a collection of protein-rich fluid in the interstitial space caused by obstruction of lymphatic drainage. Primary lymphedema is related to genetic factors and usually is present early in life. Secondary lymphedema occurs commonly in malignancy, chronic infections with fibrosis, morbid obesity, postsurgical, congestive heart failure, portal hypertension, trauma. Results. A 64 years-old women with a medical history of hypertension, ischemic heart disease, obesity presented for generalized weakness, dyspnea, calves pain, asymmetric increased circumference of lower extremity. Clinical examination showed slightly tender, asymmetric pitting edema of the lower extremities. Lab tests: complete blood count, liver tests, BUN and creatinine levels were in normal limits. Ultrasonography excluded neoplastic disease and deep veins thrombosis. Transthoracic echocardiography showed mild left ventricular hypertrophy, preserved ejection fraction. The treatment was conservative, antihypertensive medication, diet and life style changes. Conclusions. Lymphedema should be differentiated from deep vein thrombosis, congestive heart failure and chronic liver disease, commonly encountered in emergency conditions.

P27. CLINICAL IMAGE: TENDER GYNECOMASTIA, AGGRAVATING FACTOR FOR DYSPNEA IN EMERGENCY

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The aim of the study was to evaluate causes of gynecomastia in the emergency department. Materials and methods. Gynecomastia is a unilateral or bilateral enlargement of the male breast. It is a benign proliferation of the glandular tissue of the breast. Results. A 73-year-old male patient presented in the emergency department for moderate dyspnoea, leg edema, pain and tenderness of the breast. Physical exam showed bilateral enlargement of the breast, obesity (BMI 30.9), dyspnea at low effort, bibasilar rales, blood pressure 160/90 mm Hg, 87 bpm, regular. Lab tests were in

normal limits. ECG: atrial fibrillation. Chest X-ray: cardiomegaly. Transthoracic echocardiography: dilated cavities, mild mitral insufficiency, left ventricle ejection fraction 35%. Abdominal ultrasound: hepatic steatosis, kidney in normal limits. The patient was treated with angiotensin-converting enzyme inhibitor, dihydropyridine calcium channel blocker, beta-blocker, diuretics (furosemide, spironolactone), digoxin. He It was excluded other causes of gynecomastia: neoplastic disease, liver and renal disorders, hyperthyroidism, hypogonadism. Breast ultrasonography showed hyperechoic fibroglandular tissue more than hypoechoic adipose tissue. The particularity of the case: the breast pain who lasted for few months aggravated dyspnea and the anxiety. All cardiovascular medication could exacerbate gynecomastia, except beta-blockers. Cardiovascular medication is recommended by European guidelines for heart failure. The patient reduced the dose of spironolactone and received symptomatic treatment (anti-inflammatory ointment, antioxidants). Conclusions. Gynecomastia had psychological effects on patient and could aggravate cardiovascular symptoms. The heart failure medication is essential and the painful gynecomastia requires improvement other than discontinuation of cardiovascular medication.

P28. CLINICAL IMAGE: NON-ANAPHYLACTIC URTICARIA IN THE EMERGENCY DEPARTMENT

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The aim of the study: to assess the clinical presentations of acute urticaria in the emergency department. Material and methods. Acute urticaria is characterized by erythematous papules or plaques with severe pruritus, due to vascular skin reaction. Results. Case presentation 1. We report a case of a 32 years old male patient who presented for acute generalized eruption, as red wheals, with large diameter and intense pruritus. The trigger was unknown. The patient had no allergic medical history. Clinical examination: blood pressure 150/90 mmHg, 95 bpm, BMI 28.06 kg/m². The urticaria activity score was 6. Lab tests (complete blood cell count, erythrocyte sedimentation rate, immunoglobulin E, thyroid tests), ECG, pulse oximetry monitoring were in normal limits. Abdominal ultrasonography showed mild hepatic steatosis. The evolution was favorable with H1 blocking agents and glucocorticoids. The particularity of the case: adult with severe, allergic skin disease with unknown trigger and no allergic history. Case presentation 2. A 28 years old man presented with tachycardia, mild itching and psychomotor agitation. The symptoms were higher after bath and stress. Clinical exam and lab tests were in normal limits. The clinical diagnostic was dermatographism. Case presentation 3. A 38-year-old women presented for itching erythematous eruption with small wheals on the chest and abdomen, after a marathon run and profuse sweats. It lasted several hours after treatment. Physical examination and lab tests were in normal limits. Conclusion. Acute urticaria may wear different forms in clinical practice. Sometimes could be accompanied by systemic manifestations being part of anaphylactic syndrome.

P29. MIMIC STROKE IN THE EMERGENCY DEPARTMENT: STILL TETANUS IN OUR DAYS?

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The aim of the study was to assess the differential diagnostic of the muscular spasms in the jaw in patients who presented as acute ischemic stroke. Materials and methods. We report a case of a 79 years old male patient with a history of cardiovascular disease (hypertension, ischemic heart disease) admitted for trismus, left eye convergent strabismus, acute epistaxis, left retromandibular pain, and swallowing disorder with the acute onset. Results. At admission: altered general status, SatO₂ 90% at pulse oximetry with oxygen on facial mask, blood pressure 100/60mmHg, dysarthria. Lab tests: mild normocytic anemia (Hemoglobin 11.1 g/dL), thrombocytopenia (108x10⁹/L), high level serum creatinine (2.5 mg/dL), hyperglycemia (214 mg/dL), thyroid hormone levels in normal limits. He was diagnosed with acute stroke. Cerebral CT has revealed a tumor of the left side's hard palate, considered an incidental discovery. The next day showed generalized contracture episodes accompanied by a marked decrease in SatO₂, tachycardia and hypotension. Tetanus was suspected and he was transferred to an infectious disease unit. The diagnosis was confirmed and anti-tetanus immunoglobulin medication was administered without adverse reactions. During hospitalization, the patient developed febrile syndrome, with worsening of respiratory insufficiency, required orotracheal intubation, mechanical ventilation and wide-spectrum antibiotic therapy. The final diagnosis was tetanus-severe form, multiple organ dysfunction syndrome, left pneumonia. The prognosis was unfavorable with exitus. Conclusions. Our patient had a mild scratchy wound, without skin lesions at the time of examination. Age, cardiovascular medical history did the initial diagnosis of stroke more likely than an infectious disease.

P30. APOPTOSIS AS A MECHANISM FOR BURN-INDUCED GASTRIC MUCOSAL INJURY

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Severe thermal burns disturb cell homeostasis and lead to gastric mucosal injury. Various cellular mechanisms such as neutrophil and macrophage activation, mitochondrial dysfunction, free oxygen radicals, cytokine overproduction may be involved in the processes. Furthermore, these complex mechanisms for gastric mucosal damage are associated with apoptosis. The aim of the present study was to investigate the oxidative damage and apoptosis in gastric mucosa after burn trauma. Materials and methods: Under anesthesia, the shaved rats' dorsum was exposed to a 90 ° C bath for 10 s to induce third degree burn injury, involving 30% of total body surface area. The gastric mucosal injuries were observed with a light microscope. Using immunohistochemistry

method, gastric tissue was also tested for expression and location of apoptosis related proteins Bcl-2 and Bax, along with 4-hydroxynoneal (4-HNE), as marker of lipid peroxidation. Results: The histological analysis revealed circulatory changes and signs of degenerative alterations of epithelial cells in experimental group. The expression of 4-HNE in gastric epithelial cells was elevated after severe burn. Also, thermal trauma increased the expression of pro-apoptotic Bax protein, decreased the expression of anti-apoptotic Bcl-2 protein in epithelial cells of burned animals compared with the control group animals. The alteration of Bax and Bcl-2 levels resulted in an increase in the Bax/Bcl-2 ratio, suggesting the susceptibility of these cells to apoptosis. In conclusion, cutaneous thermal trauma activates lipid peroxidation and induces gastric mucosal injury via apoptosis. These results suggest that further experimental investigations are needed along with the in-depth search for gastroprotective agents restricting burn-induced apoptosis.

P31. MEDICAL EVALUATION OF HAZARD ANALYSIS AND CRITICAL CONTROL POINT SYSTEMS EFFECTIVENESS IN THE PRODUCTION OF HIGH-RISK FOODS

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Introduction. The current European legislation assigned the responsibility for food safety to the food producers and traders. In this aspect, the aim of the survey was to provide a critical analysis of the functioning of Hazard Analysis and Critical Control Point (HACCP) systems in the production of foods, presenting certain risks of specific public health hazards - foodborne toxicoinfections, infections and intoxications, for chemical contamination and additives, etc. **Materials and methods.** The survey covered HACCP-systems and prerequisite programmes of 4 enterprises manufacturing confectionery products, ready-to-serve foods, pasteurized egg products, sterilized canned foods. **Results.** The current experience has revealed major defects in hazard analysis, adequacy of critical points, corrective actions and verification procedures. The paper outlines some suggestions concerning the optimization of the relationships between the producers and the control authorities aiming to eliminate the established system discrepancies. **Conclusion.** The authors concluded that a comprehensive medical evaluation of the HACCP systems was necessary for prevention of foodborne diseases.

P32. QUALITY OF LIFE IN PATIENTS WITH BREAST CANCER

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Quality of life (QL) is closely linked to health as it focuses on the diagnosis impact on patients. The aim of this survey is to determine the disease impact on the QL of breast cancer patients. **Materials and methods.** A quality of life questionnaire (EORTC QLQ-C30) was implemented. The results were statistically processed by StatGraf. The questionnaire was applied to 37 breast cancer patients (average age of 53.9) complying with the principles of anonymity and voluntary participation. **Results.** Twenty-four (65%) of the women had small obstacles with their daily routine. A considerable part defined themselves as usually "high-spirited". Thirteen (37%) had

troubles in their family relations due to the disease. Thirty of the respondents (81%) didn't feel self-content, attractive or complete as women. Twenty (54%) were strongly worried about their future health. A great part (24/ 65%) was not sexually active. A positive statistical relation was stated between the pain syndrome and the role dysfunction ($r=0.50$, $p=0.01$). A positive correlation was found between the disease history and the chemotherapy side effects ($r=0.34$, $p=0.05$). The stronger the side effects were, the more dissatisfied with their bodies the respondents felt ($r=0.93$, $p=0.00$). A strongly significant relation was proven between the body image and the self-content ($r= 0.84$, $p=0.00$). Conclusion. The high levels of worry about their present and future health status, the marked dissatisfaction with their body image, and the little to no sexual life do seriously affect the QL and satisfaction in daily life of patients. These conclusions support the importance of a holistic approach to cancer.

P33. SCIENTIFIC KEY FIGURES OF THE EUROPEAN MEDICINES AGENCY (EMA) AND CONSEQUENCES AFTER BREXIT

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The European Medicines Agency (EMA) is responsible for the scientific evaluation, supervision and safety of medicines developed by pharmaceutical companies for use in the EU. After the UK referendum in May 2016, which launched the country's exit from the EU, the Agency should be relocated to a new EU Member State till 29 of March, 2019. The consequences for the Marketing authorisation holders (MAH) in that period are traced in this study. Materials and methods Documentary and analytical methods are used for providing scientific data of EMA and the BREXIT consequences based on published EMA and CMD (h) Guidelines. Results Scientific data present the results of EMA activities in the recent years. Based on this evaluation, the European Commission has issued 975 marketing authorisations for use of all new medicines in the 28 EU Member States (MSs) in the last two decades. The consequences regarding MAH, Qualified Person (QP), Qualified Person of Pharmacovigilance (QPPV) transfers based on the official EU documents and timelines are analysed, where the MAH should consider many challenges in order not to lose the market access of great number of medicines in the MSs till the end of March 2019. Conclusion The timeframe for the EMA relocation is less than two years - 29 of March 2019 and the pharmaceutical sector is aware for the EMA Brexit consequences but the pharmaceutical industry has to deal with significant challenges in order not to lose the access of many innovative and generic medicines across the MSs.

P34. APPLICATION OF MEDICINAL PLANTS FOR THE TREATMENT OF EPILEPSY

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Evolution of views on epilepsy as a disease has been changing through human history from a magical, animistic, demonist, religious; empirical to scientific. Throughout all periods, medicinal plants have a significant role in both treatment and in magical and religious rituals. Therapeutic procedures in monastery hospitals included as well as scientific medicine the use of medicinal

herbs (cultivated around the monasteries), animal materials, surgical methods and spiritual (religious) approach. The aim of the paper is to analyze the use of a herbs through the history of medicine with special reference to the monastery hospitals, spiritual and quantum medicine. Method. Over 100 medicinal herbs, that have been used through history as a remedy for the treatment of epilepsy, were studied. Special attention is given to the plants which were used for epilepsy medication in Serbian medieval monastery hospitals. Results. We identified the secret "16 sacred plants", which were used for epilepsy medication in Serbian medieval monastery hospitals. Conclusion. The results of this work can be used for further multidisciplinary research of the use of medicinal herbs, or their active principles as active agents in the treatment of pharmacoresistant epilepsy and other chronic incurable diseases.

P35. APPERCEPTION, BURNOUT AND ATTITUDE TO WORK AMONG MEDICAL PROFESSIONALS

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Some research results from Project № 12/2015 of Medical University of Pleven are commented in the report. The aim of the study is to examine the apperception and the attitude to work of medical professionals as well as to clarify the presence / absence of burnout and alienation to work. Materials and methods. The Maslach Burnout Inventory (MBI), work alienation tests, and demographic data were used. The data processing and statistical analysis were performed by StatGraf. The report included 130 medical professionals from "Dr. G. Stranski" University Hospital-Pleven. Results. The MBI methodology found that 95 of the respondents (73%) had a high and very high score on the "reduction of personal achievement" scale. A high and a very high level of emotional exhaustion was reported by 34 of the respondents (26%). Over 60% of all the participants have never had any doubts about their career choice or experienced alienation from the profession. A positive statistical correlation exists between the results for "alienation from work" and "emotional exhaustion" ($r = 0.35$, $p = 0.0001$) as well as the data from the depersonalisation scale ($r = 0.38$, $p = 0.0001$). Conclusion. The current state of the healthcare system is marked by numerous changes, staff turnover, working overtime as well as shortage of personnel, thus it influences the process of apperception and the attitude of the respondents to their job. Professional exhaustion is present in more than two thirds of the respondents. This, however, is not a proof of cumulated alienation to work.

P36. LIGHT MESSAGES OF MEDICINAL HERBS WHICH WERE USED IN THE TREATMENT OF EPILEPSY

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Medicinal plants represented the basis of the epilepsy treatment for centuries. Some of them were considered sacred by ancient wise men. The aim of the paper is to present physical analysis of medicinal herbs used in the treatment of epilepsy by using light formula. Method: The light formula was established by physicist Spasoje Vlaji? (1992). It connects the phonetic structure of the term in a given language with the light frequency. Based on the phonetic structure of the words, the transformation of the sound energy of the word (term) into the electromagnetic energy

of the nerve currents is examined. Discussion and results: The each sound of the word is expressed over the spectrum of white light (the order of 1014 Hz) and it has its light frequency. Light formula is: $S = \frac{ts}{n}$, $n = \frac{(S \square 398)}{60}$. The color of the term is the chromophon (S) which shows the meaningful relationship between the sound (Z), light (S) energy (E) and represents the ESZ level. The results of this research show that the internal laws of the symbolic function of the language coincide partly with the idea which the wise men of the old epochs had about relationship between the terms and its meanings. Conclusion. These plants are exceptional and wise men were not much wrong when they regarded them as sacred plants. Somehow the nature and universe with outstanding creative energy defined relationship between medicinal properties of the plants, meaning of the phonetic record of the plant name and human mind.

P37. KNOWLEDGE REGARDING RISK FACTORS OF HYPERTENSION AMONG STUDENTS IN UNIVERSITY „GOCE DELCHEV”- SHTIP

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The aim of the study. The purpose of this study is to collect information about knowledge and understandings of students in University „Goce Delcev“ regarding the risk factors of hypertension, life habits that increase the risk for high blood pressure, comparison of obtained results with similar studies and also presentation of opportunities for educational and promotional activities in the University in order to improve students' knowledge about the disease. Materials and methods. To achieve the set goals we made research about the knowledge of students from University „Goce Delcev“ Stip about the risk factors that contribute to arterial hypertension and lifestyle management techniques that are crucial for hypertension control. 247 students are interviewed from various faculties (except Faculty of Medical Sciences) from different years by random selection. The opinion pool is anonymous. The questionnaire is formulated according applied studies and includes the understandings of the risk factors and possible prevention of hypertension. The results are presented in tables, adequately discussed and compared with results from similar studies. Results The obtained results of the research showed that the knowledge of students in University „Goce Delcev“- Stip regarding risk factors for developing hypertension are insufficient, and also their lifestyle habits include numerous risk factors for developing hypertension. Conclusion In conclusion, interactive promotional and education workshops are the most effective strategies for improving students' knowledge regarding risk factors of arterial hypertension and lifestyle changes focusing on reduction of dietary salt, fat and alcohol and increase in potassium and fruits and vegetables as crucial part in hypertension management.

P38. RIGHT CORONARY ARTERY OCCLUSION IN A 69-YEAR-OLD MALE PATIENT WITH DYSPNOEA

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Introduction. Dyspnoea is a frequent, nonspecific symptom, with a variable etiology. One of the most frequent causes of dyspnoea is heart failure. Case presentation. We present the case of a 69-year-old man who presented for dyspnoea at low effort, leg edema, asthenia. The symptoms

gradually developed during the last three months. The patient is known with hypertension, dyslipidemia, dilatative cardiomyopathy and atherosclerotic peripheral artery disease of the lower limbs. The clinical examination revealed vesicular murmur diminished in the pulmonary bases, the area of the cardiac dullness overall increased, moderately turgescient jugulary veins, mitral systolic murmur degree III/VI, leg edema. The rest of the physical exam was normal. The electrocardiogram showed sinus rhythm, a pulse rate of 72/minute, the QRS complex axis at +90 degrees, T wave negative in avL derivation. The echocardiography revealed a dilated left ventricle with severe systolic dysfunction - an ejection fraction of only 15%; diffuse, severe hypokinesia of the left ventricle walls. As his systolic function was severely affected, we performed a coronary angiography, that revealed that the right coronary artery is calcified over its entire length, with a chronic occlusion of 50% in the second segment. The right coronary artery loads poorly retrograde, from the ipsilateral and contralateral collaterals. Conclusions. Chronic occlusion of the coronary arteries can cause heart failure over time. The patient was treated with candesartan 16 mg/day, carvedilol 12.5 mg/day, atorvastatin 20 mg/day, spironolactone 25 mg/day, acenocoumarol 2 mg/day, pantoprazole 40 mg/day. He had no indication for interventional therapy.

P39. ABDOMINAL PAIN - DO NOT FORGET THE VASCULAR CAUSES !

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Introduction. Acute mesenteric ischemia refers to the sudden onset of intestinal hypoperfusion, which can be due to reduction or cessation of arterial inflow. Ischemia due to acute mesenteric arterial occlusion can be caused by embolic obstruction of the intestinal blood supply, most commonly to the superior mesenteric artery (SMA), but also due to acute thrombotic obstruction, often in the setting of an already diseased mesenteric vessel (eg, atherosclerosis). Case presentation. A 85 year-old woman, with cardiovascular risk factors (obesity, hypertension, diabetes, dyslipidemia), presented for superior abdominal pain. Clinical examination: afebrile, mild leg edema, bilateral basal crackles, SaO₂ 90% while breathing ambient air. Heart rate 86 bpm, rhythmic, mitral systolic murmur grade II/IV, turgid jugulars, amputation of the left lower extremity for chronic obstructive arteriopathy. Pain at palpation in the epigastric region. At the abdominal ultrasound, the suspicion of aneurysm of the celiac trunk has been raised. The abdominal CT scan report: at approximately 7 cm after the emergence from aorta, the gastroduodenal artery shows an aneurysmal dilatation of 2.6/ 2.7/ 3.1 cm (transverse/ anteroposterior/ cranio-caudal). An arterial branch of the celiac trunk continues with the superior mesenteric artery and it is occluded in the first 7 mm from emergence, but it loads from the celiac aneurysm; filling defect at the level of SMA, at 8 cm below emergence, occupying approximately 80% of the lumen. Multiple atheromatous plaques in the abdominal aorta. Conclusion. In elderly patients with cardiovascular risk factors who present for abdominal pain, the vascular cause should always be considered in the differential diagnosis.

P41. ATRIAL SEPTAL DEFECT: ANATOMICAL-IMAGING CORRELATIONS

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Introduction. Atrial septal defect (ASD) is a congenital heart defect in which blood flows between the atria, through a defect of interatrial septum. A foramen known as ostium primum is formed between the upper surface of septum intermedium and lower border of septum primum. Later, ostium primum is closed by the fusion of two septa. Associated with the closure of ostium primum, the upper and dorsal part of septum disintegrates forming a foramen known as ostium secundum. ASDs are classified according to their location relative to the fossa ovalis and the proposed embryogenesis. Case presentation. A 75 year-old woman presented for dyspnea, orthopnea, lower extremities swelling, palpitations. She had a 3 years history of atrial fibrillation and one-year history of cardiac failure NYHA class II. Transthoracic echocardiography revealed a severe dilated right atrium, dilated left atrium, dilated left ventricle, dilated right ventricle. Atrial septal defect ostium secundum type, with left-to-right shunt. Severe tricuspid insufficiency with maximum gradient 55.4 mm Hg. Grade 4 mitral insufficiency. Severe pulmonary hypertension 75 mm Hg. The ejection fraction 29%. Interventricular sept with paradoxical motion. Conclusions. Ostium secundum defect is the most common type of atrial septal defect. The malformation often goes unnoticed for decades because symptoms may be absent and physical signs are subtle. Symptoms usually take 30-40 years to develop. They are the consequences of pulmonary hypertension, atrial tachyarrhythmias and, sometimes, associated mitral valve disease. The echocardiography can establish the size and location of the atrial septal defect, the magnitude and hemodynamic impact of the left-to-right shunt, and the presence and degree of pulmonary hypertension.

P42. ANOTHER APPROACH OF RESISTANT HYPERTENSION

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Introduction. Obstructive sleep apnea (OSA) is an important risk factor for elevated blood pressure (BP), especially in patients with resistant hypertension. Metaanalyses showed decrease of maximum 10 mmHg in BP after continuous positive airway pressure (CPAP). Case presentation. A 42-year-old female patient, obese, presented for dyspnea with moderate exertion, daytime sleepiness (Epworth sleepiness scale=12), snoring, insomnia, tingling in the legs. She has a long history of hypertension (maximum known BP=220/100 mmHg), with progressive increase in medication; BP values are currently uncontrolled with 5 antihypertensive agents hypertension, some causes of resistant hypertension were excluded. The patient underwent polysomnography (PSG), which revealed fragmented sleep (sleep efficiency= 61%, thus insomnia being diagnosed), severe OSA with apnea hypopnea index (AHI) of 45/h, minimum oxygen saturation (minSaO₂) of 65%, periodic leg movements during sleep index (PLMS) was 108/h (resless legs syndrome

was diagnosed). Ambulatory blood pressure monitoring (ABPM) report showed medium BP of 181/99/24h, non-dipper. Therapeutic PSG was performed. Sleep architecture under CPAP treatment was restructured (sleep efficiency 78%), with correction of respiratory events at pressure of 11 cmH₂O (residual AHI=2.1/h, minSaO₂=93%), less ample periodic leg movements, PLMS index 80/h. The patient followed CPAP treatment for 1 year, with no changes in antihypertensive regimen or lifestyle. After 1 year of CPAP, patient reported none of the previous symptoms and ABPM report showed medium BP of 148/88/24h, dipper profile. Conclusion. In this case, CPAP not only controlled OSA and metabolic consequences, but also determined a significant drop in BP values after 1 year of compliant use.

P43. A CASE OF ATYPICAL INFECTION WITH MYCOBACTERIUM AVIUM AFTER TUBERCULOSIS WITH NEGATIVE BACTERIOLOGY

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Introduction. Pulmonary tuberculosis, a chronic infection caused by *Mycobacterium tuberculosis*, remains an important public health problem globally and one of the most prevalent diseases in Romania. The infection with *Mycobacterium avium* is, however, atypical and it usually appears in immunocompromised patients. **Case presentation.** We present the case of a woman who was examined at the National Institute of Pneumology “Marius Nasta”, Bucharest, Romania, diagnosed with an atypical mycobacterial infection with *Mycobacterium avium* and with a history of sarcoidosis and pulmonary tuberculosis. The 66 year-old patient was admitted to our hospital for chronic cough, joint pain and also Dupuytren-like contracture, probably of auto-immune etiology. She was an ex-smoker with a history of sarcoidosis and pulmonary tuberculosis for which she received treatment. At the moment of her admission, there were no clinical findings to support the presence of sarcoidosis. However, the CT scan showed multiple “tree in bud” opacities, bilaterally in the superior and inferior lobes, which progressed slowly. The culture was negative for *Mycobacterium tuberculosis*, so the patient responded to the treatment for pulmonary tuberculosis, but it was positive for *Mycobacterium avium*. **Conclusions.** The infection with *Mycobacterium avium* is more difficult to diagnose due to its similarities with *Mycobacterium tuberculosis* regarding the symptoms, which can lead to delayed diagnosis and treatment.

P44. A 84 YEAR-OLD DIABETIC WOMAN WITH ACUTE

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Background. Lower abdominal pain is one of the frequent complaints in primary care, which can herald serious acute pathology, especially in older. Lower abdominal pain syndromes include acute appendicitis, diverticulitis or malignancy. **Case report.** An 84-year-old woman presented for one week history of progressively worsening localized lower abdominal pain and a change in bowel habits, such as the onset of diarrhea. Heart rate was 110 bpm, her body temperature was

38.5°C, and she was moderately dehydrated. During the clinical examination, tenderness and guarding to the left lower quadrant were noticed. Blood results showed leucocytosis with neutrophilia. Diagnosis after consult was acute abdominal pain. Her past medical history included a diagnosis of hypertension and diabetes mellitus type 2. Due to clinical and paraclinical features - severe abdominal pain, leucocytosis with neutrophilia - and significant comorbidities, she was referred to hospital. Abdominal computed tomography (CT) scan showed the presence of the localized bowel wall thickening on sigmoid, an increase in soft tissue density within the perisigmoid fat and the presence of multiple diverticula-like structures. We have established the diagnosis of acute diverticulitis without associated complications. She was treated following the standard protocol of acute diverticulitis: intravenous antibiotics, intravenous fluids, and parenteral pain medications. The patient was discharged on the seventh day with a recommendation of antibiotic uptake for the following seven days and a high-fiber diet. Conclusions. Diverticula involving the sigmoid colon is the most common cause of diverticulitis. Acute uncomplicated diverticulitis can be treated nonoperatively in most patients.

P45. ATRIAL FIBRILLATION RELATED HYPOTHYROIDISM: A CASE REPORT

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Background. The atrial fibrillation (AF) is a common arrhythmia, its prevalence and mortality increasing with age. The evaluation of the patient with AF allows identification of the cause of atrial fibrillation and prevents adverse consequences. Case report. A 72-year-old man presents to the general practitioner with palpitations and dyspnea, fatigue, weakness, which began 6 hours ago. He had a history of gastroesophageal reflux disease. He had no history of cardiovascular diseases and didn't take current medication. Blood pressure was 92/60 mmHg, pulse rate was 135 bpm, respiratory rate was 22/min, oxygen saturation was 95% when breathing room air, and his body temperature was 37.5°C. Physical exam showed irregularly irregular heart rate. Electrocardiogram revealed AF with rapid ventricular rate. He was referred to the emergency department. He spontaneously reverted to sinus rhythm. Echocardiography showed preserved ejection fraction, normal size and structure, and no significant valvular abnormalities. Thyroid ultrasonography revealed thyroid diffusely enlarged, hypoechogenicity, and low blood flow. Laboratory tested low serum free thyroxine, high serum TSH concentration, and high serum concentrations of antibodies to thyroglobulin and thyroid peroxidase. We have established the diagnosis of paroxysmal AF and chronic autoimmune thyroiditis. The patient was discharged on the next day and he received oral anticoagulation to prevent the long-term risk for thromboembolism associated with nonvalvular AF, propafenone and levothyroxine. Conclusions. This case reiterates that the thyroid function must be evaluated in all patients with AF. The association of AF with hypothyroidism is less recognized, but hypothyroidism can be a risk factor of AF.

P46. VARIATIONS OF SERUM TROPONIN T IN PATIENTS WITH MYOCARDIAL INFARCTION

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The aim of the study. Cardiovascular diseases and, especially, myocardial infarction represent a frequent pathology in clinical cardiology and they lead to the third part of deaths in the world. The aim of this study was the determination of some biochemical parameters – troponin T, CK-MB and LDH-knowing that their high values sustain the diagnostic of myocardial infarction. Material and methods. In this study, the determinations were performed on two groups – a Study group with 81 patients (62.4% men and 35.8% women) and a Control group (50.62% women and 49.38% men) and they were done with an immunochemical method (ECLIA) for troponin T and with kinetic methods for CK-MB and LDH. Results. The obtained results for troponin T were higher than the reference values and they revealed the existence of a statistically significant difference between the Study group and the Control one, so they sustain the diagnostic of myocardial infarction. Although, the results reflected positive statistical correlations between troponin T and CK-MB and between troponin T and LDH within the Study group, meaning that these parameters can increase their serum concentrations in the same time during a heart attack. Conclusion. The correct diagnosis of myocardial infarction and the application of the proper proceedings and treatments can prevent the different complications post-infarction, can help the patients to recover in a short time and can reduce the mortality after such a traumatic event.

P47. VARIATIONS OF SOME BIOCHEMICAL MARKERS OF THYROID FUNCTION

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The aim of the study. Thyroid is involved in controlling and regulation of carbohydrates, lipids and mineral metabolisms. Thus, it is well known that the modifications in thyroid functions lead to some metabolic disturbances and to the appearance of some severe diseases, such as diabetes mellitus and cardiovascular diseases. The aim of this study was the determination of some thyroid hormones (T3, T4, FT3, FT4, TSH), of lipid profile and of glycemia in order to reveal the possible correlations between these biochemical parameters. Material and methods. The analyses were performed on a Study group including 84 patients - 74 women with ages between 18 and 75 years and 10 men, aged between 35 and 75. The thyroid hormones were determined through an immunological method and the biochemical parameters with COBAS INTEGRA 400 PLUS analyzer. Results. The obtained results revealed that 24 patients (6 men and 18 women) presented altered values of thyroid hormones, especially of TSH. Although, in patients with higher values of TSH, higher values for lipid profile were noticed, these results confirming that the alteration of thyroid function can determine metabolic disturbances. Conclusion. These results reflect that thyroid pathology has a greater incidence in women than in men, independent of patient's age.

Also, some metabolic disturbances, especially those of lipid metabolism, can reflect thyroid pathologies and could increase the cardiovascular risk.

P48. CASES WITH THYMIC PATHOLOGY IN THE CLINIC OF CARDIOVASCULAR DISEASES

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The aim of the study. We will present a series of cases with thymic pathology hospitalized in the clinic of cardiovascular diseases. The first case is a 28-year-old female with a mediastinal cystic mass. The second case is of a 28 year-old patient with a thymolipoma and a mediastinal tumor. The third case is of a 45 year-old woman with a mediastinal tumor. The fourth case is of a 53-year-old patient with a mediastinal tumor. Material and methods. All cases have been operated. The harvested fragments were colored with the usual techniques: HE, VG, PAS-Alcian, Gomory. Malignant tumors were IHC stained. Results. The first case was stained with common techniques. The second case was immunohistochemically stained, with the following results: S 100 positive diffuse in the lesion, CD34 positive in vessels and focal in stromal cells, SMA positive in vascular walls, CK7 negative, AE 1/3 negative, CD 45 positive in inflammatory infiltrate and Ki67 positive approx. 1-3%. The third case, required IHC: CD57 positive staining in small lymphocytes, CK19 positive in tumor cells, CD117 negative, TdT and CD3 positive in thymocytes, Ki67 positive 10%. In the fourth case, the result of IHC was: CD5 positive in small lymphocytes and rare tumor cells, CD117 positive in tumor cells, TTF1 negative in tumor cells, P63 positive in tumor cells dispersed, Ki67 positive 60% in tumor cells, ER negative in tumor cells. Conclusion. The first case was diagnosed with unilocular thymic cyst. The second case was a well-differentiated liposarcoma. In the third case, the diagnosis was of B2 type. The fourth patient had a thymic carcinoma.

P49. IDIOPATIC DILATED AND ISCHEMIC DILATED CARDIOMYOPATHY – MORPHOLOGICAL ASPECTS

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The aim of the study. This is a morpho-clinical study of cases with non-ischemic and ischemic dilated cardiomyopathy (DCM) hospitalized in the Emergency Institute for Cardiovascular Diseases "C. C. Iliescu" between 2011- 2015. Material and methods. From 32 patients with DCM, we studied at necropsy 3 cases with IDC (Idiopathic Dilated Cardiomyopathy) and 3 cases with ischemic dilated cardiomyopathy (IsDC). Results. In DCM, we revealed markedly dilated ventricular chambers, ventricles > atria, ventricular wall thickness may be less than, equal to or greater than normal; mural thrombi are common; particularly in ventricular apex, increase in

weight up to 2 x 3 normal; coronary arteries permeable. In ischemic cardiomyopathy, the heart weight was 750 g in male, respectively 550 g in female; apical left ventricle aneurism and multiple scars of old infarctions, both patients with 4 coronary artery by-pass grafts. In IsDC, in case of cardiac remodeling post myocardial infarction due to myocardial substitutive sclerosis, histological changes were: regional dense collagenous scar, dilation is caused by “remodeling” of the entire ventricle, ventricular aneurysm. Conclusion. Severity of changes in IDC never correlates with dysfunction nor with prognosis. IDC is the most common heart failure entity requiring heart transplantation. While the rupture of myocardium (tamponade, acquired ventricular septal defect, rupture of papillary muscle) are acute complications, IsDC and true ventricular aneurism (often with mural thrombus) are the long term complications of ischemic heart disease. The treatment is surgical, ultimately by coronary artery by-pass.

P50. ARTHRALGIA – A DISEASE OF THE ELDERLY OR A SCREEN FOR A MORE SERIOUS AILMENT?

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Introduction. Arthralgia represents asymmetrical articular pain, of inflammatory or non-inflammatory cause, but it can also lead to the diagnosis of other serious conditions, such as neoplasia. Case presentation. Male patient, 58 y.o., smoker, drinker, without significant past medical history, presents for pain in both shoulders (left > right), symptomatology that started ~1 month before presentation. Clinical exam: pale teguments and mucosae, impalpable superficial lymph nodes; pain in the left shoulder, limited rotation; normal thorax, bilateral vesicular murmur, no crackles; rhythmic cardiac sounds, no cardiac murmurs, BP 120/70 mmHg, HR 80/min; excavated abdomen, discomfort at palpation in the right hypochondrium, liver and spleen not palpable; nycturia, interrupted urine stream. Biological: mild normochromic normocytic anemia, inflammatory syndrome. ECG: sinus rhythm, normal ST/T wave. Chest X-ray: elevated left hilum. Left shoulder X-ray: no pathologic changes. Abdominal ultrasonography: no notable modifications. Pneumology consult: functional respiratory tests showed a mild restrictive respiratory dysfunction (FVC 2.37 L – 70%, FEV1 1.92 L – 73%, FEV1/FVC 81%). Thoracic CT scan with i.v. contrast: tumor in the left lung upper lobe, encapsulating the corresponding bronchus. The bronchoscopic aspect is of total obstruction of the left apical segmental bronchus. The result of the biopsy was an undifferentiated carcinoma. The immunohistochemical tests are still in progress. Particularities of the case: diagnosis of a pulmonary tumor in a patient with no respiratory symptoms, who was admitted for arthralgia in his left shoulder. Conclusions. Bone metastases appear frequently in pulmonary, prostate and breast cancers, giving the patient a bad prognosis.

P51. CARDIAC CIRRHOSIS AND RIGHT-SIDED HEART FAILURE

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Cardiac cirrhosis or congestive hepatopathy defines liver changes that occur in the setting of right-sided heart failure. The prevalence of liver injury in heart failure is 15–65%. This disease occurs in constrictive pericarditis, mitral stenosis, tricuspid regurgitation, cor pulmonale and alcoholism. Particularly, tricuspid regurgitation coincides with hepatic congestion. The severity and characteristics of liver injury depend on the vessels involved and correspond to hepatic congestion and reduced perfusion. Heart failure symptoms are prominent and often mask gastrointestinal symptoms. Oedema typically occurs in the lower extremities and dependent regions and may progress to anasarca oedema in advanced and untreated patients. The distention of the neck veins is also very common. Hepatomegaly usually presents as a hard, firm liver, and there is also a possibility of splenomegaly. Fewer than 10% of all patients exhibit jaundice. The most common abnormality in the blood test is the mild bilirubin growth. Changes in transaminases and alkaline phosphatase also occur and albumin is reduced in 30-50% of patients, but it is not usually less than 2.5 g/dL. There are also frequent coagulation disorders. The imaging investigations needed for diagnosis are: chest X-ray, cardiac and abdominal ultrasound, MRI and CT. Needle biopsy is indicated in cases where the diagnosis is not clear and in the case of liver transplant candidates. No specific therapy for cirrhotic cardiomyopathy exists, the treatment should be supportive and address the cardiac dysfunction. Prognosis depends on the evolution of disease that led to cardiac cirrhosis.

P52. LUNG CANCER AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE - FATAL COMBINATION

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Introduction. Lung cancer is the leading cause of cancer mortality worldwide. The most common symptoms are coughing (including haemoptysis), shortness of breath, and chest pain. Case presentation. A 68 year-old woman, with a history of chronic obstructive pulmonary disease (COPD) and chronic respiratory failure, recently evaluated by the pneumologist, presented for dyspnea, persistent fatigue, whooping cough and right thoracic back pain, symptomatology that started 3 days before presentation. Clinical examination revealed periorofacial cyanosis, pain in the right thorax, increased by pressure, rhonchi lung sounds and SatO₂ 80% with oxygen therapy. The chest X-Ray revealed cardiomegaly with the elongation of the lower left hilum and the straightness of the middle left hilum and multiple disseminated bronchiectasis. Because the posterior thoracic pain persisted, we performed thoracic CT scan with contrast, which showed the presence of a tumoral mass, in the Fowler segment, having spicular extensions. Right hilar lymphadenopathy (16/14 mm), seventh costal lysis in the right hemithorax and a nodule in the right adrenal gland are also present. The oncologic and surgical consults confirmed the diagnosis of bronchopulmonary tumor with abscess in the right lung, bone and adrenal gland metastases. Bronchoscopy with biopsy was recommended. Conclusions. COPD is an important risk factor for lung cancer. The presence of secondary determinations gives the patient a bad prognosis.

P53. HYPERAMYLASEMIA - WHAT ARE WE THINKING ABOUT?

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Background. Human alpha-amylase is a digestive enzyme that hydrolyses polysaccharides, such as starch and glycogen, to smaller products. The main tissue sources of a-amylase are the pancreas and salivary glands; however, other tissues, including skeletal muscle, small intestine, and normal lung, have some alpha amylase activity. In some types of cancer, the enzyme is released into the blood and urine. Case presentation. A 52-year-old woman, known with type 2 diabetes, hypertension, pleural effusion, was hospitalized because of dyspnea and right-sided chest pain that radiates to hypochondrium. The symptoms appeared one month before. Clinical examination: satisfactory general state, blood pressure 110/60 mmHg, respiratory system - resonant percussion on left side, absent on right side, vesicular murmur absent in the right side, no crackles on auscultation; pain on palpation in the left hypochondrium. Laboratory findings: increased inflammatory markers, hyperamylasemia (1200 U/L). Abdominal ultrasound – normal. Subsequently, thoracic X-ray was performed, with evidence of right pulmonary effusion and enlargement of the right pulmonary hill. We decided to perform thoraco-abdominal-pelvic tomography with radiocontrast agent. At the thoracic level, a right pleural effusion was revealed, and a right perihilar mass. Bronchoscopy with biopsy was recommended. The result of the biopsy from the tumor was pulmonary adenocarcinoma. Conclusions. Hyperamylasemia is a paraneoplastic syndrome rarely found in lung cancer, where diagnosis of paraneoplastic syndromes occurs weeks to months before the diagnosis of lung cancer.

P54. UNCONTROLLED HYPERTENSION ASSOCIATED WITH ANTIPLATELET THERAPY - RISK FACTOR FOR SPONTANEOUS KIDNEY RUPTURE

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Background. Non-traumatic spontaneous rupture of the kidney is a rare pathology, hypertension, chronic heart failure, diabetes and neoplasia being frequent causes for this condition. Case presentation. We report the case of a 56-year-old female, who has presented at the hospital for acute abdominal pain. 2 weeks before admission the patient had a coronary angioplasty with implantation of a pharmacologically active stent on anterior interventricular artery. The intervention was performed by the radial artery. Clinical examination showed pale skin, blood pressure 160/80 mm Hg, painful abdomen on palpation in the left flank, Giordano maneuver positive on the left. Laboratory investigations showed a moderate normocytic normochromic anemia, hyperglycemia and glycosuria. Abdominal ultrasound showed fatty liver, the left kidney with subcapsular hematoma. Abdominal CT scan revealed a renal subcapsular hematoma in the left kidney lodge. Repeated CT scans have been performed, for monitoring the renal hematoma. Surgery was postponed because of the risk of interruption of antiplatelet therapy. The last abdominal CT scan performed during hospitalization revealed a stationary aspect of the left renal hematoma. The patient has been advised to maintain a complete bed rest. The evolution slightly

improved under antibiotic treatment, dual antiplatelet therapy, a calcium channel blocker and insulin. The patient will be evaluated by abdominal ultrasound after a month. Conclusion. Because no other causes for kidney rupture have been found, we concluded that hypertension was the only predisposing cause for this complication in a diabetic patient with dual antiplatelet therapy.

P55. AUTOIMMUNE THYROID DISEASES – CALCIUM METABOLISM CHANGES

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The aim of the study. Thyroid autoimmune dysfunction, one of the most frequent autoimmune disorders, has an increasing prevalence. We evaluated a possible relationship between the calcium levels and autoimmune thyroid dysfunction. Materials and methods. The study group included 30 patients, aged between 20 – 76 years; 10 patients had autoimmune hyperthyroidism, Graves' disease, 10 patients had autoimmune thyroid insufficiency, Hashimoto thyroiditis, and 10 patients had normal thyroid function. Ionized calcium, TSH, FT4, FT3, TRAb and TPO antibodies were evaluated. Results. Normal levels of ionized calcium were observed in 8 patients with autoimmune thyroid insufficiency, in 4 patients with autoimmune hyperthyroidism and in 7 patients with normal thyroid function. Conclusions. The thyroid dysfunction associated reduced ionized calcium levels in 25% of the patients and increased ionized calcium levels in 15% of the patients. We found a negative correlation between the ionized calcium and TSH and a positive correlation between ionized calcium and FT3 in patients with autoimmune hyperthyroidism.

P56. PHOSPHO-CALCIUM METABOLISM CHANGES IN POSTMENOPAUSAL WOMEN

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The aim of the study. Vitamin D, calcium and magnesium deficiencies are common worldwide, causing important effects. A high prevalence of vitamin D deficiency was described in postmenopausal women in Romania. Osteoporosis is a disorder of low bone mass and damaged skeletal architecture resulting in impaired bone strength and an increased risk of fragility fracture. We intended to evaluate a possible correlation between the calcium, magnesium and 25(OH) vitamin D levels with bone mineral density in postmenopausal women. Materials and methods. The study group included 20 postmenopausal women, aged between 50 – 87 years; calcium, magnesium, 25(OH) vitamin D and DXA T-score, for lumbar spine and for hip – bilateral femoral neck- were evaluated. Results. 90% of the patients were diagnosed with osteoporosis; nine patients (50%) had low bone mineral density values in both lumbar spine and femoral neck. Calcium levels were normal in 17 patients; only 15% of the patients had magnesium levels below normal limits. 85% of the patients had 25(OH) vitamin D levels lower than the optimal values (> 30 µg/ml). Conclusions. The results of the study indicated the importance of DXA T-score evaluation for both, lumbar spine and femoral neck, sites. Vitamin D, calcium and magnesium deficiencies are preventable global public health problems in postmenopausal women.

P57. NEUROLOGICAL RECOVERY IN INFANTS WITH CEREBRAL PALSY

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The aim of the study. Infantile cerebral palsy is characterised by involuntary, abnormal movements, misbalance, loss of coordination in movements, neurological, sensitive, sensory, mental, nervous changes. The aetiology is unclear but prenatal, perinatal or postnatal factors were suggested. The most recent therapeutically options include neurological recovery with important effects on infantile psychiatry and kinetically treatment. The different clinical forms have different therapeutically options. This study tried to evaluate the impact of specific medical recovery program on quality of life in these patients. Material and methods. The study included 20 children, aged between 4 – 17 years, with infantile cerebral palsy, who followed specific, complex physical and kinetically treatment; they were evaluated after 3 months and then after 6 months by: anamnesis, functional traction, manual traction, muscle tonus, muscle control and coordination, walk and oral-facial traction. Results. The therapy was followed two times weekly for six months. After 3 months we observed a mild recovery of the disabled's. After 6 months of therapy the children had a progress. Conclusions. Kinetic-therapy was useful to obtain the posture that ensure: the relaxation of the contracted muscles, normalization of vicious posture, prevention of muscle-tendon retraction, inhibition of muscle hypertonia, obtaining and strengthening balance motor control reactions, awareness of body scheme, motor control stimulation, re-education in walk and in manual ability.

P58. ANTIOXIDANT ACTIVITY OF SOME BRASSICA SPECIES

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Among Brassica species, some are widely known both for their nutritional value and pharmacological effects. The aim of the study was the determination of chemical composition and antioxidant activity of broccoli, cauliflower and Brussels sprouts. Materials and methods. Herbal products were acquired from a local supermarket and freeze-dried. Qualitative (specific chemical reactions, thin layer chromatography) and quantitative assays (spectrophotometric determination of total phenolic content) have been used for evaluation of chemical composition. The antioxidant capacity was determined based on ferric reducing power assay and expressed as EC50 ($\mu\text{g}/\text{mL}$). All determinations were performed on hydroalcoholic and aqueous solutions, in order to determine the solvent's influence on both chemical composition and overall antioxidant capacity. Results. Our results pointed out that all analysed species are a source of phenolcarboxylic acids, flavones, tannins, saponins and free sterolic/triterpenic compounds. Thin layer chromatography revealed the presence of β -sitosterol and ursolic acid. The chemical reactions for phenolic compounds were more intense for the hydroalcoholic solutions, which is in agreement with the total phenolic content. Regarding the antioxidant capacity, hydroalcoholic solutions have a higher ferric reducing power compared to aqueous ones. The antioxidant capacity decreases as follows: broccoli ($\text{EC}_{50} = 3.18 \mu\text{g}/\text{mL}$) > Brussels sprouts ($\text{EC}_{50} = 3.84 \mu\text{g}/\text{mL}$) > cauliflower ($\text{EC}_{50} = 6.68 \mu\text{g}/\text{mL}$). Conclusion. Analysed Brassica species are a source of natural compounds with antioxidant activity.

P59. UPPER GASTROINTESTINAL BLEEDING - CAUSES AND FREQUENCY

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Aim of the study. The purpose of the study was to assess the causes and the frequency of the upper gastro-intestinal bleeding in an Emergency County Hospital. Material and methods. Three years retrospective study - 1st January 2014 till 31st December 2016- was performed in the Ilfov County Emergency Clinical Hospital. 3524 patients were investigated in the Digestive Endoscopy Unit. Results. 125 patients with non-variceal upper gastrointestinal bleeding - 72 men and 53 women 35 patients under 50 years and 79 over 50 years old - Causes produced HDS were: gastric ulcers 32, duodenal ulcers - 28, erosive gastro-duodenitis - 27, 18 - cancer, reflux esophagitis - 16, Mallory Weiss - 4 syndrome. The Forrest classification revealed: jet bleeding -8, diffuse bleeding - 39, visibly non- bleeding vessel 31, adherent clot -17, black lesion base - 30. Conclusions. Most of the upper gastrointestinal bleeding appeared in patients aged over 50 patients, with increased male gender prevalence. Most of them were caused by gastric and duodenal ulcers, as well as by erosive gastro-duodenal lesions - 87 cases. Most bleedings were stage I B and II A (Forrest Classification).

P60. CHALLENGES OF THE FIRST STUDY DESCRIBING INTRON 22 INVERSION FREQUENCY IN ROMANIAN HAEMOPHILIA A PATIENTS

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Aim. Haemophilia A (HA) is a bleeding disorder caused by mutations of the FVIII gene, with more than half of severe cases caused by inversions in intron 22 (inv22) and intron 1. Genotyping for HA is practiced in most European countries, yet not in Romania. The aim of this paper is to present the main challenges encountered in the design of the first Romanian study regarding inv22 detection in HA. Materials and methods. Genomic DNA was isolated from peripheral blood of HA patients following a standard procedure and evaluated quantitatively by spectrophotometry. Long-distance PCR was performed using methods previously described (Poláková, 2003). The PCR product was analyzed by agarose gel electrophoresis. Results, Data is scarce regarding an estimate of patients affected by severe HA in Romania. Lack of funds dedicated to research also is a major problem in our country, especially when it comes to grants involving researchers with little experience or undergraduates. Preliminary results of inv22 frequency will be reported at the event. We expect mutation rates similar to literature data (45-50%). Conclusions. Genotyping in HA represents a useful aid in clinical practice, since it can predict the risk of neutralizing anti-factor VIII antibodies development. However, genotyping for this disorder has not been introduced in our country so far. This pilot study emerges as the first report of the inv22 frequency in Romania.

Acknowledgements: This work received support through the research grant competition for students of the Society of Students in Medicine of Bucharest (SSMB), contract no. 231/29.03.2017.

P61. SENILE SYSTEMIC AMYLOIDOSIS: A BRIEF REVIEW

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Aim. Senile systemic amyloidosis (wild-type transthyretin amyloidosis, ATTR) is a proteopathy which occurs due to the accumulation in different sites of a functional and structural protein – transthyretin (prealbumin synthesized by the liver, responsible for the transport of T4 thyroid hormone). This paper reviews the principal findings in senile systemic amyloidosis. **Materials and methods.** A literature search was computed by four independent investigators using the MEDLINE database, PubMed, and Google Scholar search services with the following keywords: senile amyloidosis, non-mutated transthyretin, and constrictive cardiac hypertrophy. Inclusion criteria incorporated relevant articles in English/French, published between 01/01/2007 and 01/07/2017, addressing senile amyloidosis as their main theme. The exclusion criteria were unavailability of any full article, unclear presentation, non-relevant studies and reports of different languages. The common features were assembled into the present review. **Results.** The protein forms extracellular deposits mostly in the myocardium, causing cardiac signs and symptoms, and therefore differential diagnosis with other types of amyloidosis (light chain amyloidosis and mutated ATTR) is needed. This disorder affects generally affects the elderly (>65 years) and its prevalence among men is 20 times higher than in women. **Conclusions.** Senile systemic amyloidosis can also be characterized by ocular, renal or pulmonary deposits. The frequency of the disease is underestimated, epidemiological studies stating that 20-25% of persons over 80 years old have this type of deposit in the cardiac parenchyma. Senile systemic amyloidosis is a deadly disease even if the diagnosis is early. The life expectancy is below 7 years and the treatment is mainly symptomatic.

P62. THE IMPORTANCE OF MEDICAL SIMULATION IN ENDOVASCULAR TRAINING

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Aim. Interventional radiology has emerged in the latest years as a minimally invasive technique used in the treatment of a variety of diseases, considerably reducing hospital stays. This study aims to evaluate the impact of medical simulation on the practical training of a group of medical students with little experience in the field of interventional radiology. The tested procedure was the embolization of the uterine artery. **Materials and methods.** The study involved the subjective and objective assessment of 13 medical students with no prior experience in the field of interventional radiology. The training consisted of a theoretical part (basic knowledge regarding

the technique) and a practical approach in which students performed uterine artery embolization on a Mentice VIST C endovascular simulator. Subjective evaluation was performed before and after the three hour training, each student completing a questionnaire which assessed: navigation through the human vascular system, orientation in space and equipment handling. Objective evaluation was performed by an authorized lecturer using the same questionnaire. Responses were structured as a Likert scale with 5 items, each granted 1 to 5 points. Results. Responses were evaluated both globally and on each separate item. The mean value of the total score was: 12.07 ± 3.52 points. After three hours of practical training, the mean value of the total score improved by 72%, to 20.76 ± 2.12 points (p -value < 0.05). Conclusions. Medical simulation emerges as an important tool in medical personnel training, contributing to a significant improvement of experience and a decrease in medical errors.

P63. THE INVOLVEMENT OF OXIDATIVE STRESS IN CARDIOVASCULAR DISEASE

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Aim. Oxidative stress is defined as the imbalance between the level of reactive oxygen and nitrogen species and the total antioxidant capacity of the organism. It is involved both in physiological and pathophysiological processes, including the development of cardiovascular disease, mainly atherosclerosis, hypertension, acute myocardial infarction and heart failure. This manuscript aims to provide an overview of the possible links between oxidative stress and cardiovascular disease. Materials and methods: MEDLINE database and Google Scholar search services were used for article collection (keywords: oxidative stress, cardiovascular disease, antioxidant(s), and reactive oxygen species). Inclusion criteria incorporated relevant articles in English, published in the last five years that addressed the involvement of oxidative stress in cardiovascular disease as their main theme. The exclusion criteria were case reports, unavailability of any full article, unclear presentation, non-relevant studies and reports of different languages. The common features were assembled into the present review. Results. Reactive oxygen species contribute to vascular damage and endothelial dysfunction. Cardiovascular risk factors are a source of excessive production of reactive oxygen species; when the level of reactive oxygen species exceeds the available antioxidant defence systems, the harmful effects of oxidative stress in the heart and vasculature prevail. Conclusions. Oxidative stress is involved in the development of cardiovascular disease. Reducing the level of reactive oxygen species by medication combined with lifestyle changes (healthy diet and moderate physical activity) contributes to cardiovascular protection. Exogenous administration of antioxidants is questionable since it has not proven benefits in clinical trials and may even increase mortality.

P64. THE MEASLES EPIDEMIC OF ROMANIA IN 2017: EPIDEMIOLOGICAL DATA

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Background. Romania documented 7233 cases of measles, even though the National Programme of Immunization has included two doses of the vaccine, at 12 months and at 5 years of age, since January 2016. **Material and method.** The aim of this study is to evaluate the actual state of the Romanian measles outbreak, to define the affected groups and identify the possible underlying causes. This research is reviewing papers recently published in Romanian medical journals and weekly reports of the National Centre of Infectious Disease Monitoring and Control. **Results.** The first cases of measles occurred in January 2016, representing a community outbreak in the west of Romania. The measles virus strain identified as B3 is different from the usual D4 endemic strain in Romania. Most of the cases were reported by Timis county (n=1167). Of all the cases, 58.74% were children less than 5 years of age, while 12.02% were aged 20 years or over. The highest incidence was reported in children of 1 to 4 years of age (39.45%) and under 1-year-old (19.28%). Of all the cases with known age, 96.77% did not undergo immunisation, 2.28% had one dose of vaccine, while 0.8% had two doses of vaccine. 30 deaths have been reported since January 2016. **Conclusions.** As a consequence of increased incidence of measles, the new recommendations of the Romanian Ministry of Health are to apply the first dose of MMR vaccine earlier, in children of 9 months of age.

P65. RECOVERY AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION

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The aim of the study. Anterior cruciate ligament rupture has a prevalence of 1:1750, in patients aged between 15–45 years; 70% of the cases are related with exercise. The arthroscopic surgical therapy is recommended in the first 3 weeks after the accident. The study wanted to evaluate the factors that can improve the patient’s state and the complete recovery options for the knee. **Material and methods.** We evaluated 20 patients, pre operative and post operative, for seven months, during and after the physiotherapy, electrotherapy and thermotherapy, by scales (Tegner, VAS) and questionnaires (Lysholm, Lachmann test). **Results.** In our study the patients were male, aged 25–40 years. All patients had physiotherapy and thermotherapy; 11 patients required electrotherapy. Adjustable brace was recommended for 6 weeks in 55% of the cases, for 5 weeks in 35% and for 4 weeks in 10%. Lysholm questionnaire was initially 71,2 and after the therapy 82,15; VAS scale, useful in all the recovery phases, reduced from 6–7 to 2–3 in 3 weeks. **Conclusions.** The triad physiotherapy, electrotherapy and thermotherapy is the most important treatment for recovery after a ligament reconstruction. Tegner scale revealed that after the surgery the majority of the patients had the same activity. Lachman test was important for the diagnosis and for the evaluation after 3 months when the test was negative for all patients.

P66. THE IMPORTANCE OF QUALITY OF LIFE IN CHRONIC PATHOLOGY MANAGEMENT

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Quality of life (HRQL) represents an important factor in terms of disease management. The increasing trend of chronic pathology requires a careful assessment of HRQL. Aim: To identify the impact of one or more chronic conditions and risk factors on HRQL. Material and method. The study group consisted of 125 patients diagnosed with different chronic conditions. We identified the following distribution of chronic diseases: cardiovascular (105), respiratory (94), digestive (76), renal (39), psychiatric (48), rheumatic (89), diabetes (78). We used SF8 questionnaire and we evaluated the following parameters: physical and social activity, pain, vitality, mental and emotional status, health status generally speaking. The influence of certain risk factors (inactivity, smoking, inadequate diet, occupational stress, obesity, alcohol) on the quality of life was analyzed. Results 80,8% of patients had more than two chronic diseases. This condition led to an important decrease in each of the analyzed scores, the most significant being physical activity. Lack of physical activity (84%) and smoking (68%) were the risk factors with the greatest impact on HRQL. The comparative analysis of scores recorded in people with more than three chronic conditions showed net superior scores for physically active subjects compared to sedentary subjects in all scores. Conclusions: Patients with more than two chronic conditions experience a significant decrease in physical activity and impairment of mental status. The presence of risk factors potentiates these effects. The combination that ensures an acceptable level of quality of life is the reduced number of chronic conditions associated with sustained physical activity.

P67. CASPASE-DEPENDENT MECHANISMS OF APOPTOSIS INDUCTION AND THE ACTIVITY OF PEROXIDATION AND ANTIOXIDANT DEFENSE IN THE THYROID TISSUE OF PATIENTS WITH NODULAR FORMS OF GOITER COMBINED WITH AUTOIMMUNE THYROIDITIS AND THYROID ADENOMA DEPENDING ON THE ALLELIC STATUS OF Bcl-2 (rs17759659), CTLA-4 (rs231775), APO-1 / Fas (rs2234767) GENES

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The aim of the study. In the process of their vital activity, the cells are exposed to many damaging factors of endogenous and exogenous nature. It is undoubtedly that various toxic influences or metabolic disorders lead to the development of oxidative stress, and in this case the future of the cell is determined by a balance of various adaptive metabolic processes induced by a pathological factor, as well as by genetic and constitutional features of its biochemical systems. The aim of the

study was to analyze the mechanisms of caspase-dependent apoptosis and pro- and antioxidant activity in the thyroid tissue homogenate in patients with NGAIT and TA considering the polymorphic variants of BCL-2 (rs17759659), CTLA-4 (rs231775), APO-1 / Fas (rs2234767) genes. Material and methods. We investigated pro- and antioxidant activity and the activity of caspases 3 and 8 in 5% of thyroid tissue homogenates. The BCL-2 (rs17759659), CTLA-4 (rs231775), Fas (rs2234767) genes polymorphism were studied by Real-Time Polymerase Chain Reaction in 95 patients with NGAIT, 30 patients with TA and 25 healthy individuals. Results. We have not found any pronounced dependence of the processes OMP and AOP, nor the activity of caspases-8 and 3 in the thyroid tissue on the genotypes of BCL-2 (rs17759659) and APO-1/Fas (rs2234767) genes. However, it should be noted that in homozygous carriers of A-allele of the BCL-2 (rs17759659) gene, the activity of effector caspase-3 is higher than in the control group. Conclusions. The imbalance between the activity of peroxidation and antioxidant defense in patients with NGAIT and TA is associated with the promoter of the CTLA-4 (rs231775) and APO-1 / Fas (rs2234767) genes and is characterized by an increasing degree of OMP in the altered thyroid tissue, alongside with a lower capacity of the AOP system enzymes.

Abbreviations: NGAIT - nodular goiter on the background of autoimmune thyroiditis; TG - thyroid gland, TA – thyroid adenoma, OMP - oxidative modification of proteins, AOP – antioxidant protection.

P68. THE ROMANIAN JOURNAL OF CARDIOVASCULAR SURGERY – UNIQUE PROJECT OF MEDICAL SCIENTIFIC PRESS

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Professor Doctor Honoris Causa Vasile Candea, member of the Romanian Academy of Medical Sciences, President (1994-2016) and Honorary President thereafter of the Academy of the Scientists of Romania, International Secretary General (1997-2013) and Honorary Secretary General thereafter of The Balkan Medical Union, Editor-in-Chief (1997-2016) of the Archives of The Balkan Medical Union, as Founder and First President in chronological order, of The Romanian Society for Cardiovascular Surgery (2002-2006), Editor-in-Chief and Founding Editor of The Romanian Journal of Cardiovascular Surgery, the official journal of this society (2002-2011), takes the responsibility to invite his colleagues and collaborators, implicated in the surgical treatment of the cardiovascular diseases from Romania and other countries to contribute, in the English language, to this unique project of medical scientific press in Romania. The publication of the specialized journal proves the maturity reached by the medical scientific society, “Advancing of the Cardiovascular Surgery published in the Romanian Scientific Press, 2002-2012”, an impressive three volumes book with 1373 pages, includes selected articles from The Archives of the Balkan Medical Union, The Romanian Journal of Cardiovascular Surgery and from The Annals of The Academy of Scientists of Romania, The Medical Sciences Series, with 348 medical professionals as authors, coordinated by Vasile Căndea, Ionel Droc and Francisca Blanca Călinescu and published in 2012 at “Editura Academiei Oamenilor de Știință din România”, Bucharest, Romania.

P69. PROFESSOR IOAN POP DE POPA – THE INTERNATIONAL PERSPECTIVE

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Professor Doctor Docent Honoris Causa Ioan Pop De Popa, Member of the Romanian Academy of Medical Sciences, born in Oradea, Romania, October 6, 1927, exceptional surgical and intellectual personality, devotes his entire career to the development of the cardiovascular surgery in Romania during the second half of the XX-th century and continues in the beginning of the XXI-st century. Founding President of the Society for Cardiovascular Surgery, part of the Union of The Medical Scientific Societies from Romania (1989) and of the Foundation for the Protection of the Patients with Cardiovascular diseases in Romania (1991), he is author of 615 published and communicated scientific works at national and international congresses and symposia (1953-1991), 28 inventions, the invaluable cardiovascular trilogy of the Romanian medico-surgical literature including the monographs dedicated to The Inferior Caval System, redactor (1973), The Heart (1975) and The Aortic Arterial System, redactor (1982-1983) and of the autobiographic trilogy. Professional, scientist, humanist and citizen, man of this country, man of his time, he is nationally and internationally recognized: cited in Who's who medical in Romania, Who's who of Balkans and in The International Who's who of intellectuals, Cambridge, receiving: the prize “Gheorghe Marinescu” of the Romanian Academy, the National Order “Steaua României în Grad de Cavaler” and the Medalion “Crucea Comemorativă a Celui de Al Doilea Război Mondial”, he is member of “The New York Academy of Sciences” (1977) and “L’Academie de Chirurgie”, Paris (1984).

P70. THE XL-TH MEETING OF THE EUROPEAN SOCIETY OF PHLEBECTOMY- THE ROMANIAN CONTRIBUTIONS

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There is a traditional close relationship between Romania and France in the field of medical education, practice and science, a contemporary example being the Romanian contribution to the, originally of French expression, European Society of Phlebectomy and Balkan Medical Union. The XL-th Meeting of The European Society of Phlebectomy, “The Actual Treatment of the Varicose Veins”, was held at The Romanian Athenaeum in Bucharest, Romania, May 9, 2009, under the auspices of the Romanian Society of Phlebectomy, the Romanian Society of Cardiovascular Surgery-Bucharest Section and of the International Association of Cardiovascular Pathology, the Local Organising Committee being represented by Marina Pacescu (National Representative), Sorin-Liviu Baila, Nicolae Jianu Tesoiu (Members) and Raphael Halpern. The scientific programme includes twenty-four oral communications grouped in five sessions: “Anatomy and Diagnosis”, “Endovascular Techniques I”, “Endovascular Techniques II”, “Laser and Surgery” and “Surgery and associated procedures” and published “in extenso” in the Journal of The European Society of Phlebectomy. Ten speakers, recognised members of the European Society of Phlebectomy, came from France (Grenoble, Neuilly-sur-Seine, Paris and Riom), Italy (Lissone, Milano and Rome) and from Switzerland (Geneve); fourteen speakers came from

Romania (Bucharest, Cluj-Napoca, Craiova, Iasi and Timisoara). My reflections on this international medical scientific event are presented in an article generously comprised in The Archives of the Balkan Medical Union, Year 2009, Volume 44, Number 4, The Official Journal of The Balkan Medical Union.

P71. FACIAL EDEMA POST CIPROFLOXACIN INGESTION IN A PATIENT WITH A HISTORY OF ALLERGIES: WHAT OTHER MANIFESTATIONS CAN HIDE?

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The aim of the study was to assess the differential diagnostic of facial edema in the emergency room. Materials and methods. We report a case of a 45 years old female patient presented for facial edema and paraesthesia after ingestion of ciprofloxacin. The patient has a history of multiple drug allergy syndrome, iron-deficiency anemia. Results. The physical exam showed painless small cervical and supraclavicular lymphadenopathies. Lab tests: mild leukopenia (3,700/mm³), microcytic anemia (9.6 g/dL), inflammatory syndrome (ESR 64 mm/h), hypertriglyceridemia (274 mg/dL). Chest X-rays were in normal limits. Abdominal ultrasound: hepatic steatosis, mild splenomegaly and mild polyserositis (pleural effusion on right side, ascites fluid in Morison's pouch, and pericardial effusion). Tumor markers CA 19-9 and CA 125 were positive. Contrast-enhanced abdominal CT, upper endoscopy and colonoscopy were negative for malignant tumors. Anti-HBs antibody and ANA were positive. Systemic corticosteroid (prednisone) relieved symptoms and serositis. Particularity of the case: acute onset with facial swelling and polyserositis in a patient with a history of allergy without meeting the criteria for systemic erythematous lupus. Conclusions. The onset of the autoimmune diseases can be acute as the overlap syndrome.

P72. FACTORS INFLUENCING COMPLIANCE TO TREATMENT IN PATIENTS WITH CARDIOVASCULAR DISEASES

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Aim. Identifying key factors that influence treatment compliance in patients with cardiovascular diseases. Material and method: The study group included 95 patients diagnosed with: ischemic heart disease (75), heart failure (45), hypertension (89), atherosclerotic arteriopathy of lower limb (34), chronic venous insufficiency (48). 75 patients came from rural areas. The most commonly encountered age group was between 65-74 years. Evaluation was performed 3 and 6 months after initiation of treatment. Results: We identified the following factors influencing the compliance to treatment: erroneous perception of the severity of the disease (48), inadequate incomes (78), reduced accessibility to the family doctor due to distance from the medical cabinet (60), long waiting time for clinic visits (54), lack of health education (72), medication in several daily intakes (42), lack of improvement of symptoms (25). The questioning of patients regarding effective methods of health education has revealed the following distribution of their importance: information campaigns through television, radio (75), actions at pharmacies (57), written

materials (brochures, flyers) (36), application of compulsory analysis programs and penalties in the event of failure to carry out analyzes (58), posters in public places (30), periodic checks at work (24). Conclusions: The study confirmed the importance of analyzing treatment compliance in its complexity, emphasizing the importance of both internal and external factors. Common strategies must target a healthcare system designed with convenient accessibility for patients, an improvement of financial assistance to low income as well as strengthening of health knowledge and relationship between patients and healthcare providers.

P73. COMPARATIVE ANALYSIS OF LIFE EXPECTANCY IN BALKAN COUNTRIES (1970 - 2015)

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Introduction. Life expectancy indicates the average number of years which a person of given generation may expect to live according to the mortality patterns of the country. Disability-adjusted life expectancy (DALE) estimates is based on age-specific information on the prevalence of non-fatal health outcomes. The aim of the study is to analyze characteristics of Life expectancy and DALE in Balkan countries, as very informative indicators for public health assessment. Material and methods. Descriptive study of the status and trends of Life expectancy and related indicators has been conducted based on the Health for all the database of the European World Health Organization region. Results. Life expectancy varies from 71.6 for Moldova to 82.55 (79.8 for man; 83.4 for women) for Cyprus. Bulgaria, with 74.96, is ranked before the last place, after countries like Turkey, Albania, Croatia, Macedonia. The largest increase was recorded in Greece (7 years), and most unconvincing in Montenegro. DALE ranges from 64.87 for Moldova to 71.89 for Greece. In the period 2010 – 2015, it grows fastest in Slovenia, Albania and Turkey. While maintaining these growth rates, in the next 5 years, Turkey will get ahead of Bulgaria by this indicator, and Slovenia will take the lead among the Balkan countries. Conclusion. Throughout the observed period, Life expectancy and DALE have been increasing. The rate of increase varies between countries. The gap between these two indicators is higher for longer-lived populations. Differences are also found in relation to gender. Increasing Life expectancy contributes to population aging of the Balkans.

P74. DELAY IN PRESENTATION AND EVALUATION OF ACUTE STROKE

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The aim of study. To determine the delay in the presentation and evaluation of acute stroke. Materials and methods. 2805 stroke patients have been assessed for the purpose of this study. The structures of the stroke, diurnal and seasonal addressability, the reason and promptness of requests and diagnostics which mimic the stroke were all assessed in this study. Results: Ischemic Stroke constituted 1,983 (70.6%) cases. The most affected categories of age being 60-69 years (33.1%). The study of diurnal and seasonal addressability confirmed a high risk for Monday's, Tuesday's, Wednesday's and Friday's, which registered in 63% of cases. In the spring and winter seasons 55.8% cases were registered. The diurnal study attested that 32.4% of strokes appeared from 16:00 to 24:00, and 10,7% from 24:00 till 08:00 in the morning. Only 18.9% of the calls

were indicative of stroke from patients' descriptions. The most frequent symptoms which were reported were the slurring of speech, paresis in limbs, disturbances of consciousness. Diagnoses which mimic the stroke include: syncope 2.1%, coma 1.8%, sequelae of stroke 2.9%, epilepsy 1.1% and hypertensive encephalopathy 0.2%. Conclusion. Stroke preponderantly affects patients over the age of 60 years 74% of the time. The most frequent symptoms were the slurring of speech, paresis in limbs, and disturbances of consciousness. Informative programs for the population are required, taking into consideration that only 1 of 5 patients that has reached the emergency services were aware of the problems and consequences caused by stroke.

P75. EFFECT OF PHARMACIST INVOLVEMENT ON PATIENT REPORTING OF ADVERSE DRUG REACTIONS IN BULGARIA

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Introduction. The World Health Organization (WHO) defines pharmacovigilance as the science and activities relating to the detection, assessment, understanding and prevention of adverse effects or any other possible drug-related problems. Adverse drug reactions (ADRs) are a significant cause of morbidity and mortality and contribute to the incidence of adverse events, resulting in increased healthcare costs. Healthcare providers need to understand their role and responsibility in the detection, management, documentation, and reporting of ADRs, all essential activities for optimizing patient safety. Pharmacists have an important responsibility in monitoring the ongoing safety of medicines. **Aim.** The aim of the study is to reveal what is the clinical responsibility of the pharmacist in the early detection of ADRs. **Methods.** It was conducted an anonymous survey in tree of the biggest cities in Bulgaria among 421 pharmacists working in 102 community pharmacies and in 3 hospital ones. **Results.** Lower reporting rates by pharmacists are observed in Bulgaria. Between January and June 2017, only 1.2% of all pharmacists have reported ADRs compared with about 70% of ADR reports submitted to the MEDWATCH program in the US by pharmacists, most of which are from hospital-based pharmacy practitioners. Most of respondents unanimously shared that they did not report about observed ADRs neither on the page of the Bulgarian Drug Agency, nor though the Yellow Card. **Conclusion.** Underreporting of ADRs is a common phenomenon in spontaneous post-marketing surveillance programs. Underreporting may delay signal detection and cause underestimation of the size of a problem. The effectiveness of an ADR monitoring and reporting program depends on the awareness of all healthcare providers. It is important to address within the pharmacy profession that ADR surveillance is a priority and a professional responsibility. It is essential to be organized more educations for pharmacists and more studies on ADR monitoring and reporting in Bulgaria are necessary.

ACKNOWLEDGMENTS

BALKAN MEDICAL UNION-BULGARIAN NATIONAL SECTION is pleased to acknowledge the following sponsors:

