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- Clujul Medical - Journal of Medicine and Pharmacy

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Medical Science

ARNICA MONTANA EXTRACT EFFECTS ON EXPERIMENTAL ARTHRITIS

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Introduction. Inflammation causes an imbalance between antioxidant and pro- oxidant (including nitric oxide and oxidative stress) factors. This imbalance in turn will lead to structural and functional damage, just like in RA [1]. Arnica Montana has been proven to have antioxidant capacities and was used in the treatment of chronic inflammation and rheumatoid arthritis [2]. Due to this fact we tested the Arnica Montana leaf and flower extracts in different dilutions for its effect on experimental arthritis, focusing on reactive oxygen species (TOS, MDA, OSI), nitric oxide and total antioxidant capacity.

Material and methods. Whistlar-Bratislava male albino rats were divided in 9 groups (n=6). Arnica Montana flower and leaf extracts solutions of 100%, 50% and 25% were administered and inflammation was induced by Freund's Complete Adjuvant. Blood was collected via retroorbital puncture and tests were run in order to measure the total antioxidant capacity (TAC), Thiols, total oxidative status (TOS), malonyldialdehyde (MDA), Nitric Oxide (NO) and Oxidative Stress Index (OSI).

Results. TAC was significantly decreased by arthritis ($p< 0.001$) and significantly increased by A. Montana leaf extracts 100%. Thiols were significantly decreased by experimental arthritis ($p<0.001$) and significantly increased by A. Montana leaf extracts 100% and 50% and A. Montana flower extracts 100% ($p<0.001$). TOS,was significantly increased by experimental arthritis ($p<0.05$) and significantly decreased by leaf extract 50% and flower extract 100% ($p<0.05$). NO was significantly increased by experimental arthritis ($p<0.001$) and significantly decreased by A. Montana leaf extract 100% and 50% as well as flower extracts 100% and 50% ($p<0.01$). MDA was significantly increased by arthritis ($p<0.001$) and significantly decreased by A. Montana leaf extracts 50% and flower extracts 100%. ($p<0.05$).

Conclusion. Leaf extract 50% solution of Arnica Montana and flower extract 100% solution of Arnica Montana had the best antioxidant capacity.

Keywords: arnica montana, rheumatoid arthritis, NO, MDA, TOS, TAC

SMOKING HABITS AND ANTI-CCP ANTIBODIES IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Introduction. Anti-cyclic citrullinated peptide (anti-CCP) antibodies show high specificity for rheumatoid arthritis (RA). The aim of the study was to investigate the correlation between smoking and high levels of anti-CCP antibodies in patients with RA. The secondary objectives were to evaluate the association between smoking and the disease activity and, respectively, radiological progression.

Material and methods. The retrospective study included 147 patients diagnosed with RA in the Rheumatology Department based on the American College of Rheumatology (ACR) criteria. Anti-CCP antibodies were measured by enzyme-linked immunosorbent assay (ELISA) in the serum. The smoking habits of the patients were also assessed. The other variables we evaluated were: the onset of the disease, the family history, C reactive protein (CRP) and erythrocyte sedimentation rate (ESR) levels, hand and wrist imaging. Disease activity was measured using DAS28 (Disease Activity Score based on evaluation of 28 joints). The present and past treatment of patients was reviewed.

Results. The mean value of the anti-CCP antibodies was higher in smokers than in non-smokers (306 U/ml I vs. 289 U/ml) but the difference was not statistically significant ($p>0.05$). However, the study shows that smokers have a 2.33 fold higher risk of developing a form of RA with positive anti-CCP antibodies than non-smokers ($p<0.05$; $r=0.15$). Smokers were more likely to develop a severe disease. There were no significant differences between the radiological progression of disease in smokers and non-smokers. However, smokers required switching to other therapies more often than non-smokers. Smokers were also more likely to require novel therapeutic agents such as biological therapies earlier in their treatment.

Conclusion. This research study showed that there is no statistically significant increase in the level of anti-CCP antibodies in smokers as compared to non- smokers. However, smokers were more likely to develop RA with positive anti-CCP antibodies. The disease was more severe in smokers than in non-smokers.

Keywords: rheumatoid arthritis, anti-CCP antibodies, smoking

THE PREVALENCE OF LONG-TERM ORAL ANTICOAGULATION THERAPY IN A CARDIOLOGY CENTER IN BUCHAREST, ROMANIA

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COORDINATOR: GUBERNA SUZANA

Introduction. Few studies discuss the prevalence of oral anticoagulation therapy (OAT) in clinical practice, despite their increasing use worldwide [1]. In the USA, studies established that 20% to 80% of the patients with indication, benefit from OAT [2]. In Romania, there is no data regarding the utilization of oral anticoagulants. Thus, this study aims to determine the trends of OAT.

Material and methods. We designed a cross-sectional study of the patients admitted in the Cardiology Department at the „Bagdasar-Arseni" Clinical Emergency Hospital, Bucharest, from the 1st of November 2016 until the 31st of January 2017. We considered OAT indications: atrial fibrillation/flutter (AF), pulmonary embolisms (PE), deep vein thrombosis (DVT), intramural or intracavitary thrombi and left ventricle aneurysms. Statistical analysis was performed with EpiInfo.

Results. 783 patients were admitted, 253 of these having an OAT indication (mean age 73.25 years, 53.75% female). Only 167 patients (66.01%) received it, either Vitamin K Antagonists (VKA) (80 patients, 47.90%), or Novel Oral Anticoagulants (NOAC) (87 patients, 52.09%). Reasons for not indicating such therapy included the hemorrhage risk (43.27%), the lack of adherence to the treatment (18.56%), the impossibility of INR monitoring (21.84%) or the poor economic status (10.21%) and others (6.12%). 221 patients had AF (87.35%), 141 (63.8%) receiving OAT, VKA (67 patients, 47.51%), or NOAC (74 patients, 52.48%).

17 patients (6.71%) had a PE and/or DVT. 15 (88.23%) received OAT, AVK (11 patients, 73.33%), or NOAC (4 patients, 26.67%). 15 patients (5.92%) had other OAT indications (excepting AF or PE/DVT), 11 receiving OAT (73.33%), AVK (8 patients, 72.72%), or NOAC (3 patients, 27.27%).

Conclusion. We determined that 66.01% of those with indication received OAT. Similar data is reported in the USA, suggesting an underuse of anticoagulants. The risk of hemorrhage, lack of adherence, the impossibility of INR monitoring or the poor economic status were the main reasons for not recommending OAT.

Keywords: oral anticoagulation therapy, atrial fibrillation, pulmonary embolism, deep vein thrombosis

CLINICOPATHOLOGICAL ANALYSIS OF A CASE SERIES OF LENNERT LYMPHOMA

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COORDINATOR: TOMULEASA CIPRIAN IONUT

Introduction. Peripheral T-cell lymphoma, not otherwise specified (PTCL- NOS), is the most common type of mature T- or NK-cell lymphoma. According to the World Health Organisation (WHO), several histologically specific lymphomas, such as Lennert lymphoma and a follicular variant of PTCL are currently classified as PTCL-NOS. However, these types of lymphomas exhibit a very heterogenous clinical behaviour and not well defined pathologic features. An accurate and effective prognostication system is still needed. The aim of our current work was a clinico-pathological description and correlation of a case series of Lennert's lymphomas from the „Ion Chiricuță" Oncology Institute Cluj-Napoca (IOCN).

Material and methods. Paraffin embedded lymph node biopsies from 8 cases of Lennert lymphoma diagnosed at the IOCN between the years of 1987-2014 were used. We performed haematoxylin-eosin colouring and immunohistochemical staining for different markers, as well as Epstein-Bar virus (EBV) status determination on all samples.

Results. All of our cases showed EBV negativity, as opposed to other published cases. The 5 year survival in this case series was 87.5%, in contrast to other case reports which displayed significantly worse prognosis.

Conclusion. Considering the good overall survival of our patients and their EBV negativity, we propose EBV infection as an important factor in the survival of PTCL- NOS patients.

Keywords: T- or NK cell lymphoma, Epstein-Barr virus, immunohistochemistry, peripheral T cell lymphoma

IS DEPRESSION CORRELATED WITH THE MOTOR DEFICIT IN ALS?

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Introduction. Amyotrophic lateral sclerosis (ALS) is a fatal disease with a median survival of 2-3 years from the onset of symptoms. ALS is characterized by the death of central and peripheral motor neuron. „Amyotrophy" refers to the atrophy of denervated muscle fibers as their corresponding anterior horn neurons degenerate and „lateral sclerosis" refers to the changes in the lateral columns of the spinal cord. Medical complications such as aspiration pneumonia and respiratory insufficiency are contributing to mortality in ALS. The depression occurs as a consequence of the motor deficit because it advances in a short time and there is not a specific medication to stop its evolution. Our aim was to evaluate the presence of depression and to find a correlation of it with the motor deficit.

Material and methods. We conducted a prospective study that included 12 patients diagnosed with ALS in 2017 at the I-st Clinic of Neurology from the Emergency County Hospital of Targu Mures. We used the ALS Functional Rating Scale (ALSFRS) and ALSFRS-R (Revised) to calculate the patients degree of functional impairment and asked them to complete the Beck questionnaire (BDI-II) for measuring the severity of depression.

Results. We found out that 3 patients were presenting a medium motor deficit and borderline clinical depression according to the BDI-II; 1 of them presented extreme depression which was correlated to an extended motor impairment and 5 patients had no depression and a low or medium motor impairment. We noticed a significant Spearman correlation - RC ($p=0.0202$, $r=0.6665$), 95% CI: (0.1309-0.909) between the presence of depression and the degree of motor deficit. Seven patients needed treatment for their different levels of depression based on the BDI-II score and all of them are monitorized in evolution.

Conclusion. We found a correlation in our study between the occurrence of depression and the degree of motor impairment in the patients with ALS.

Keywords: amyotrophic lateral sclerosis, motor deficit, depression, Beck questionnaire

ASSESSMENT OF SNAPPE II SCORE IN NEONATES WITH DUCTAL DEPENDENT SYSTEMIC FLOW

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COORDINATORS: CUCEREA MANUELA, SUCIU LAURA MIHAELA

Introduction: Congenital heart diseases with a ductal-dependent systemic flow are rare and it is often difficult to predict the outcome of these patients. The Score for Neonatal Acute Physiology with Perinatal Extension (SNAPPE-II) predicts both morbidity and mortality in neonates admitted to the Neonatology Intensive Care Unit (NICU). The aim of our study was to assess the SNAPPE-II score in patients with ductal-dependent systemic flow congenital heart diseases.

Material and methods. We retrospectively evaluated medical records of 35 neonates, admitted within the NICU of Tîrgu Mureș Emergency County Hospital between January 2014 and December 2016. Anthropometric data such as gender and weight at birth, presence of antenatal diagnosis and complications (cardiac arrest, need for mechanical ventilation and inotropic support) were collected. Also, data regarding prostaglandin treatment (day of initiation, duration of the treatment) were gathered and SNAPPE-II score was calculated for every patient.

Results. SNAPPE-II score was statistically correlated with the sum of all complications ($p<0.01$, $r=0.48$, 95%CI 0.17-0.71). SNAPPE-II was significantly higher in patients with more than one cardiac malformation ($p=0.03$) and in those that were not diagnosed antepartum ($p=0.01$). SNAPPE-II score was significantly lower in patients that had the prostaglandin treatment initiated in the first 48 hours of life, when compared to those in which the treatment was initiated after this threshold ($p=0.03$, 95%CI 0.99-19.5).

Conclusion. Patients with a higher SNAPPE-II score are at a higher risk of developing cardiorespiratory complications during the admission period. SNAPPE-II score was lowered by an early initiation of prostaglandin treatment, as seen by the lower score in patients with initiation within the first 48 hours of life. Also, cases in which the diagnosis of congenital heart disease was not established antepartum were associated with a higher SNAPPE-II score.

Keywords: congenital heart disease, neonatology, prostaglandin, ductal-dependent

NA/H EXCHANGE INHIBITOR: NOVEL THERAPEUTIC APPROACH FOR PERINATAL ASPHYXIA RELATED INJURY

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CO-AUTHOR: CORNEA TEODOR
COORDINATOR: ZAGREAN ANA-MARIA

Introduction. Intrapartum-related events are the third leading cause of childhood mortality worldwide. Perinatal hypoxic-ischemic encephalopathy and the following cerebral damage appears to be responsible for up to 25% of all causes of developmental disabilities in children: cerebral palsy, mental retardation, learning disturbances, and neurosensorial deficits. There are multiple etiologies, but all result from diminished supply of oxygen and blood to the CNS of the neonate, leading to brain extracellular and intracellular alkalosis resulting from an enhanced Na/H exchange dependent net extrusion of acid equivalents. These results suggest targeting BBB-mediated pH regulation as a novel therapeutic approach.

Material and methods. Several groups of male postnatal day 6-7 rat pups were used. One of the groups was exposed for 60 minutes to 20% CO2 and 9% O2 (asphyxia). Sodium fluorescein was used to gain further information on BBB permeability. To manipulate acid transport across the BBB, a Na/H exchange blocker—MIA was used.

Results. Seizure burden was quantified based on the number of animals with loss of righting reflex (LRR) and was compared to the control group using a two tailed Mann-Whitney U-test. Blocking the Na/H exchanger using MIA decreased the post-asphyxia alkalosis overshoot and reducing seizure burden by 88% ($p=0.0002$, $n>8$).

Conclusion. The best current therapy for perinatal asphyxia is moderate hypothermia, which presents with limited efficacy, decreasing the burden by only 11%. Thus, there is a great need for alternate therapy with greater efficacy. Na/H exchange blockers have been shown to diminish seizure burden caused by asphyxia, and could be a viable and much needed future therapeutic option.

Keywords: perinatal asphyxia, alkalosis, MIA

HEPATORENAL SYNDROME APPROACH – A LITERATURE REVIEW OF THE LATEST DISCOVERIES IN DIAGNOSIS AND EFFECTIVE TREATMENT

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CO-AUTHOR: DIACONU ANCA
COORDINATOR: ALBU ELENA

Introduction. Hepatorenal syndrome (HRS) is a severe form of acute kidney injury (AKI) that typically occurs in patients with decompensated liver cirrhosis, but is also a frequent complication of fulminat hepatic failure and acute alcoholic hepatitis. HRS remains a diagnosis of exclusion and is associated with a dismal prognosis. The purpose of this review is to present the recent advances in this field, including the recent change of the definition of HRS according to AKI criteria, the current diagnostic approach and the updated therapeutic protocols adopted in clinical practice.

Material and methods. Using the PubMed database, we investigated articles related with HRS, terlipressin, cirrhosis and AKI. The inspection strategy was to exclude articles before the year of 2014 and 6 papers were subsequently omitted.

Results. The most important predictor for patient survival after liver transplant is the pre-transplant kidney function according to Fabrizi et al. The use of urinary levels of neutrophil gelatinase-associated lipocalin may serve to distinguish functional kidney damage from other causes of kidney injury. Furthermore, the serum cystatin C level is a good marker for predicting and survival in patient with cirrhotic ascites. Randomized studies demonstrated a much higher rate of improvement in renal function when terlipressin and albumin were used compared to other treatments. Recent data show that terlipressin is better tolerated, presenting fewer side effects when it is used in continuous infusion. The Fractionated plasma separation and absorption compared to standard medical therapy in liver failure report significant survival benefit.

Conclusion. The medical management, surgery and instrumental therapies of HRS may play a role in the control of the syndrome and obtaining temporary remission, but the curative treatment at this moment can be achieved only by liver transplantation.

Keywords: hepatorenal syndrome, acute kidney injury, cirrhosis

BREAST ULTRASOUND OF THE PREGNANT AND LACTATING PATIENT – WHAT THE RADIOLOGIST NEEDS TO KNOW

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COORDINATORS: CHIOREAN ANGELICA, SZEP MADALIN

Introduction. Breast lesions detected during pregnancy and lactation are generally benign, but the possibility of breast cancer must also be considered to avoid any delays in diagnosis. The standard method for assessing these breast disorders is ultrasound combined, if needed, with core needle biopsy. We aim to highlight the ultrasound appearances of these disorders and intervention for evaluating this population.

Material and methods. A retrospective study was performed including all pregnant and lactating women investigated for palpable masses during a 2 year period. Ultrasound findings, pathology results, and clinical notes were reviewed. Aspects were assessed according to BI-RADS and Tsukuba elasticity score. Means of diagnostic: percutaneous biopsies for BI-RADS 4 and 5 lesions; short term follow up BI-RADS 3 lesions and no further assessment for lesions categorized as BI-RADS 2 lesions with no suspicious clinical signs.

Results. Forty-eight lesions were included. The most frequent were fibroadenomas (twenty-five; 3 of these were growing fibroadenomas and 1 intraductal fibroadenoma), followed by galactoceles (ten), lactating adenoma (three), physiologic changes during pregnancy (two) and physiologic changes during lactation (five). Three pregnancy-associated breast cancers were identified (ductal carcinoma in situ, II grade ductal carcinoma in situ, III grade invasive ductal carcinoma). These three cases underwent surgery during pregnancy and had favorable maternal and fetal outcomes.

Conclusion. Knowledge of the entities that are specifically related to pregnancy and lactation and of their imaging appearances are essential for an accurate diagnosis.

Keywords: ultrasound, lactation, pregnancy, biopsy

THE IN VITRO EVALUATION OF GONADOTROPIC AND SEX HORMONES INFLUENCE ON PROLIFERATION AND CELL CYCLE STATUS OF HUMAN GLIOMA CELL LINES

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COORDINATORS: MONIUSZKO MARCIN, GRUBCZAK KAMIL

Introduction. Primary brain tumors account for 5-10% of the neoplasms, and those with the highest mortality rate are represented by tumors derived from central nervous system stem cells - gliomas. Cancer transformation is a multi-stage process initiated by the accumulation of mutations in cellular DNA, promoted by intensive divisions and ineffective remedial mechanisms. Tropic hormones, including the pituitary gonadotropins, are particularly characterized by strong modulatory properties and might contribute to uncontrolled growth and proliferation, both target tissues and other cells bearing proper receptors. Based on theoretical assumptions research tasks were aimed at the evaluation of hormonal influence on proliferation and the cell cycle status of human glioma cells.

Material and methods. Glioma cell lines (U-87; A-172) were cultured for 48h in presence of prolactin (PRL), follicle-stimulating hormone (FSH) or luteinizing hormone (LH). Cells were stained with the use of CFSE to assess proliferation. Alterations within cell cycle were determined using propidium iodide (PI) and the use of 7AAD allowed for evaluation of tumor cells viability.

Results. LH significantly inhibits glioma cell lines proliferation. PI staining showed A172 cells arrest in S-phase of cell cycle indicating reduction of cancer cells expansion. In reference to U87, LH has also a cell-killing effect. Despite no changes in proliferation status of cancer cells in response to FSH, cell cycle analysis indicates its progression within A172 glioma cells.

Conclusion. Increased cell cycle progression under the FSH stimulation may explain a rise in the incidence in patients over 65 years of age, when elevated levels of this hormone are observed due to impaired gonadal hormone function. Presumably, regulation of FSH- and LH-associated pathways might be a potential target for therapeutic strategies.

Keywords: brain tumors, glioma, hormones

EVALUATION OF PATIENTS WITH LOWER EXTREMITY PERIPHERAL ARTERY DISEASE BY WALKING TESTS: A PILOT STUDY

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COORDINATORS: GHERMAN CLAUDIA DIANA, BOLBOACA SORANA DANIELA

Introduction. Peripheral artery disease (PAD) directly affect the quality of life, patients experimenting limiting walking ability and disability. The purpose of our study was to investigate the walking pattern of patients with lower extremity PAD in relation with several factors in a Romanian population.

Material and methods. A cohort non-randomized design was conducted and all eligible subjects how self-referred for medical care since March 2016 to February 2017 at the Second Surgery Department, County Clinical Emergency Hospital of Cluj-Napoca were included. The eligible patients were older than 18 years, with leg pain and Rutherford grade from I to IV. Three walking tests were applied to each subject included in the study to investigate the capacity to walk as far as possible in six minute (6 minute walking test), the capacity to climb stairs (climbing stairs test) and the capacity to walk on a treadmill (treadmill test) until the pain occurred.

Results. Twenty four patients with mean age of 65.08±8.53 years were investigated. Almost 81% of patients were with chronic pain, 46% were overweight, and 79% were smokers. The results on applied walking tests were as follows: 279.17±70.58m to 6-minutes walking test, 77.50±21.80 stairs, and 182.50±73.34 meters on treadmill test. The results of the walking tests significantly correlate with each other ($\rho>0.93$, $p<0.0001$), and all applied tests significantly correlate with toe gangrene ($\rho>|0.52|$, $p<0.01$) and toe disarticulation ($\rho>0.62$, $p<0.002$).

Conclusion. Any of the applied walking tests proved reliable instruments able to identify the patients with most severe PAD.

Keywords: claudication, peripheral arterial diseases, reliable tool, walking test

HISTOPATHOLOGICAL AND IMMUNOHISTOCHEMICAL STUDY OF LATEROCERVICAL LYMPH NODE METASTASES OF UNKNOWN PRIMARY ORIGIN

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CO-AUTHOR: MITRU MARIA
COORDINATOR: MĂLIN RAMONA DENISE

Introduction. Carcinomas of unknown primary (CUP) are histologically defined as the presence of a metastasis without detection of the primary tumor. CUP is a very heterogeneous condition, in which the type of the tumor, its extension and the treatment vary widely. In this study we examined histopathologically and immunohistochemically 24 cases of laterocervical lymph node metastases with unknown primary origin. For the immunohistochemical study we used a large panel of antibodies represented by CK7, CK19, CK20, CKAE1/AE3, CK34betaE12, TTF1, HBME-1, CEA, MUC5AC and EBV. In the cases studied tumors accompanied by seemingly primitive adenopathies were located in the thyroid, lung, esophagus, stomach, rhinopharynx, hypopharynx, oropharynx and larynx.

Material and methods. Our study comprised 24 cases with a clinical tumor adenopathy, with an unknown primary tumor site. Lymph node biopsy fragments were fixed in 10% formalin, processed through the usual technique for paraffin inclusion and stained with the hematoxylin and eosin technique. 4 μm-thick serial sections were cut and subjected to immunohistochemical processing using LSAB2/HRP visualizing system (Dako, code K0690). Signal detection was performed using 3.3' diaminobenzidine (DAB).

Results. The study which was conducted over a period of five years (2004-2008) included 252 cases of which 228 cases (90.48%) were with secondary adenopathy and 24 cases (9.52%) with apparently primitive adenopathy, which are adenopathies of unknown primary origin. For the 24 lymph node metastases with apparently primitive origin, following a clinical, laboratory, histopathological and immunohistochemical investigation, we identified the following locations of the primary tumor: thyroid-2 cases (8.33%) , lungs-2 cases (8.33%), digestive tract-2 cases (8.33%) , rhinopharynx-9 cases (37.5%), oropharynx-6 cases (25%), hypopharynx-2 cases (8.33%) , larynx-1 case (4.16%).

Conclusion. A panel of antibodies including CK7, CK19, CK20, CKAE1/AE3, CK34betaE12, TTF1, HBME1, CEA, MUC5AC and EBV can identify the location of the primary tumor in most cases of laterocervical lymph node metastases with unknown primary origin.

Keywords: laterocervical lymph node metastases, unknown primary carcinomas, histopathology, immunohistochemistry

SYSTEMIC FIBRINOLYSIS AND ULTRASOUND-ASSISTED CATHETER-DIRECTED THROMBOLYSIS IN INTERMEDIATE-RISK PULMONARY EMBOLISM: A META-ANALYSIS

AUTHOR: COPOERU ARMIN DAN
COORDINATOR: COUŢI RĂZVAN

Introduction. Intermediate-risk pulmonary embolism has a high mortality and morbidity and its treatment is still a subject of debate. Anticoagulation therapy is the mainstay, but systemic and catheter-directed fibrinolysis show promising results. In recent years, ultrasound-assisted thrombolysis (USAT) has been researched as a superior form of treatment. The purpose of this meta-analysis was to evaluate the effectiveness of USAT in intermediate-risk patients when compared to systemic fibrinolysis.

Material and methods. A PubMed and Cochrane Library search was conducted for randomized controlled trials (RCTs) and case series. Primary outcomes were all-cause mortality and bleeding (minor and major), secondary outcomes were right ventricle/left ventricle end-diastolic dimensions (RV/LV ratio) and pulmonary artery systolic pressure (PASP) up to 24h after treatment. Six USAT and 13 systemic fibrinolysis studies were selected.

Results. USAT has a lower risk of minor bleeding (OR: 0.52, 95% CI: 0.32 to 0.87, p=0.01), but no statistical difference for major bleeding (OR: 0.48, 95% CI: 0.18 to 1.22, p=0.12). There was also no improvement in all-cause mortality (OR: 0.24, 95% CI: 0.03 to 1.80, p=0.16). PASP was increased in the USAT group (SMD= 0.3, 95% CI: 0.1 to 0.5, p=0.001), while RV/LV ratio decreased (SMD = -1.1, 95%CI: -1.4 to -0.8, p<0.001).

Conclusion. Intermediate-risk pulmonary embolism continues to be a difficult pathology. USAT shows improvement in certain areas, but mortality and major bleeding remain pressing issues. Small populations and differing criteria may cause bias, so larger RCTs are needed to directly gauge the full benefits and disadvantages of USAT, compared to other therapies.

Keywords: pulmonary embolism, intermediate-risk, systemic fibrinolysis, catheter-directed thrombolysis

BIOLOGIC MARKERS OF CARDIAC DYSFUNCTION AND RISK ASSESSMENT OF PULMONARY EMBOLISM AS PREDICTORS OF MORTALITY IN PE PATIENTS

AUTHOR: JIGA MARIA ANDRADA
COORDINATOR: SÎRBU VOICHIȚA ILEANA

Introduction. Pulmonary embolism (PE) along with deep venous thrombosis (DVT) stand as surrogates for venous thromboembolism (VTE), acute PE being the most serious clinical presentation of VTE and a major cause of hospitalization, morbidity and mortality worldwide. PE represents an obstruction of the pulmonary artery and/or one of its branches by thrombus or other material that originated elsewhere in the body. Among predictors of early mortality risk, troponin and NT-proBNP values indicate RV microinfarction or RV pressure overload and a potentially ominous prognosis. Objective: The aim of this study was to identify if biologic markers of cardiac disfunction correlate with mortality in PE patients and if they have a higher predictive value in association with the clinical risk assessment.

Material and methods. Our retrospective, observational study included 114 patients (60 women, age 68±12) diagnosed with pulmonary embolism using CT angiography, between 2012-2017. Inclusion criteria: patients diagnosed in Cardiology Department I, IUBCVT Târgu-Mureș, age >18 years, who signed the informed consent. For all patients plasma concentrations of troponin and NT- proBNP were measured and the cut-off values established at >0.009 ng/mL and >400 pg/ml, respectively. A classification of patients was made according to 2014 ESC Guidelines.

Results. Subsequent of early mortality risk evaluation, 8.8% (n=10) of patients were classified into the HR category, 80.7% (n=92) in the IR category and 10.5% (n=12) designated as LR patients. All cause mortality was 21.9% (25 patients: 3HR, 9IH risk, 13IL risk and no mortality in LR category). None correlated significantly with mortality. Using Mann Whitney test, we obtained a significant correlation between elevated NT-proBNP values and mortality (p=0.02), but not the same with elevated troponin levels (p=0.38). Multivariable analysis, including NT- proBNP and troponin levels did not show a higher predictive level. Furthermore, in association with clinical classification, NT-proBNP did not show a higher predictive value regarding mortality.

Conclusion. NT-proBNP is an important predictor of mortality in PE patients, therefore can be routinely used in clinical practice for prognostic evaluation.

Keywords: pulmonary embolism, mortality, cardiac biomarkers, risk assessment

THE TRAPS OF STEMI

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COORDINATOR: DOBRANICI MIHAELA

Introduction. Frequently dubbed „stress cardiomyopathy", Takotsubo syndrome is an acute and reversible heart failure related syndrome that features different characteristics of acute coronary syndrome (ACS).

Material and methods. A 49-year-old female, with no significant medical history, presented at Targu Jiu Regional Hospital for intense constrictive retrosternal pain. The symptoms appeared 10 hours prior to admission, after experiencing a strong emotional distress regarding a member of the family. The first electrocardiogram (EKG) revealed: sinusal rhythm, pulse rate 60 bpm, normal QRS axe, ST-segment elevation in leads DII, DIII, avF, V2, V6, prolonged QT (520ms), negative T in leads V2, V6. Shortly after presentation, the patient suffered cardiopulmonary arrest due to *torsades des pointes* and was consequently resuscitated.

Results. The patient was transferred to Fundeni Clinical Institute in Bucharest, where coronary angiography, left ventriculography and two echocardiographs were performed. The first blood tests revealed: WBC 18530/mm, Hb 13.4 g/dl, AST 98u/l, ALT 114u/l, CK 1074 u/l, CKmb 95 u/l, glycaemia 122 mg/dl, Mg 2.64 mg/dl, K 2.5mm/l, Na 144 mm/l. Blood tests taken the following day showed increased CK and CKmb (2332 u/l and CKmb 101 u/l). First echocardiography: apex ballooning, including 2/3 apical of the LV, interventricular septum=12, moderate mitral regurgitation, LVEF=40%. Second echocardiography: 2/3 apical LV akinesis, altered diastolic fonction. All biological parameters were normalized in the second blood tests. Coronarography: normal, without lesions. Ventriculography: apical and mid- ventricular hypokinesia. Treatment: Sortis 20 mg/day, Prestarium 5 mg/day, Spirinolactone 50 mg/day, Betaloc Zok 100 Mg/day, Aspacardine 3 cp/day, according to studies.

Conclusion. Although it first appeared as a STEMI (ST-segment elevation myocardial infarction), the connection between major (mitral regurgitation) and minor (prolonged QT, ST-segment elevation, LVEF, emotional stress) risk factors together with the imagistic investigations led to the confirmation of Takotsubo syndrome in this patient.

Keywords: Takotsubo, STEMI, angiography, LVEF

THE IMPORTANCE OF GENETIC POLYMORPHISM IN PANCREATIC PATHOLOGY

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Introduction. Pancreatic disorders have a high prevalence worldwide. Despite the fact that screening methods have become more effective and the knowledge we have nowadays about pancreatic diseases has enhanced, their incidence remains high. Our purpose was to determine whether single nucleotide polymorphism (SNP) of VEGFR-2/KDR (vascular endothelial growth factor receptor 2/kinase insert domain receptor) influences susceptibility to develop pancreatic pathology.

Material and methods. Genomic DNA was extracted from blood samples collected from patients diagnosed with acute pancreatitis (n = 110), chronic pancreatitis (n = 25), pancreatic cancer (n = 82) and healthy controls (n = 232) from January 2013 to December 2016. VEGFR-2 (KDR) 604A>G (rs2071559) polymorphism frequency was determined with TaqMan allelic discrimination. Statistical assessment was performed by associating genetic polymorphism with clinical and pathological data.

Results. In both pancreatic disorders and healthy control groups the polymorphism we studied was by the Hardy-Weinberg equilibrium. Association between increased risk for pancreatic disorders and studied polymorphism was statistically significant. KDR 604AG and AG + GG genotypes were more prevalent in acute pancreatitis and pancreatic cancer patients than in controls. These genotypes influence disease development in a low rate. No association was found between chronic pancreatitis and KDR 604AG and AG + GG genotypes. In the Romanian cohort, we found an association between the KDR 604A→G polymorphism and acute pancreatitis and pancreatic cancer.

Conclusion. Carriers of the -604G variant allele were more frequent among acute pancreatitis and pancreatic cancer than among controls, suggesting that KDR 604G allele may confer an increased risk for these diseases. In the future, more extensive studies on larger groups are necessary, in order to clarify the role of VEGFR2 polymorphisms in pancreatic pathology.

Keywords: pancreatic disorders, polymorphism, genotype, VEGFR-2

EASY SCREENING OF MALNUTRITION: IS IT EVEN POSSIBLE? DIAGNOSIS OF MALNUTRITION IN ELDERLY HOSPITALIZED PATIENTS AND ITS CORRELATION WITH SERUM ALBUMIN LEVEL

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Introduction. Early detection of malnutrition is significant especially in elderly hospitalized patients' since it has been linked to a wide range of risk factors, adverse outcomes and it also influences patients' prognosis.

Material and methods. The presented study is a cross-sectional part of a prospective study on malnutrition prevalence and its determinants are patients aged 80 and more hospitalized in the Department of the Internal Medicine and Geriatrics University Hospital in Cracow. Nutritional status was assessed with the use of the MNA - SF. Patients were classified as malnourished if they got 7 points or less. The patients' medical records were searched for serum albumin level measured after the patient's hospital admission.

Results. Malnutrition was diagnosed in 58.6% of 99 examined patients (65.7% of women, mean age: 87.1±4.4 years). There was no difference in frequency of malnutrition diagnosis with regard to sex (63.1 % for women vs 50.0% for men, $p=0.21$). The median (Q1;Q3) serum albumin level for malnourished patients was 31.0 (27;36) for women and 31.3 (30;36) for men. For patients classified as those at risk for malnutrition or normal nutritional status, the median serum albumin level was significantly higher than for those malnourished ($p<0.005$): 38.0 g/l (34.1;41). There was a moderate correlation between the points achieved by the patients in the MNA-SF scale and serum albumin levels ($p<0.05$, $r=0.45$). The correlation was stronger in the group of the aged hospitalized men ($r=0.76$, $p<0.05$) than in the aged hospitalized women ($r=0.28$, $p<0.05$).

Conclusion. Serum albumin level might be used for the preliminary initial assessment of the aged patients' nutritional status. However, as malnutrition is a common problem among old patients and serum albumin levels may vary due to different diseases, it is extremely important to conduct a standardized nutritional assessment in all elderly hospitalized patients.

Keywords: malnutrition, serum albumin level, Mini Nutritional Assessment- Short Form, screening

ARRHYTHMOGENIC CHANNELOPATHIES PATIENTS WITH IMPLANTABLE CARDIOVERTER-DEFIBRILLATOR FROM THE CASUISTRY OF A TERTIARY CARDIOLOGY CENTER: FOLLOW- UP

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Introduction. Arrhythmogenic channel disturbances can lead to malignant ventricular arrhythmias and further to sudden cardiac death; therefore, an implantable cardioverter defibrillator (ICD) has a lifesaving role for high-risk patients. Objective: The purpose of this study was to evaluate patients diagnosed with arrhythmogenic channel disturbances who underwent ICD implantation, regarding the evolution of arrhythmias, replacement and optimal programming of the device, and possible complications.

Material and methods. All patients with an ICD implanted for arrhythmogenic channelopathies were retrospectively included, using primary records of IuBCvT Targu Mures between 2009-2016.

Results. Fifteen patients met the inclusion criteria, 7 men and 8 women, aged 41+/-14 (min 19, max 68), 11 cases diagnosed with long QT syndrome and 4 cases diagnosed with Brugada syndrome. None of the Brugada syndrome patients had documented arrhythmias or symptoms related to an arrhythmia during the follow-up period of 72.8+/-19.6 months and no base treatment was administrated, but they had been recommended to avoid arrhythmic precipitating factors. Regarding LQT syndrome patients all had been treated with the maximum tolerated dose of beta blocker for the follow-up period of 56.2+/-34.6 months, in which 3 (27.3%) of them presented arrhythmic recurrences. During the follow-up period 4 patients received device therapies: appropriate-25% (torsades de pointes/polymorphic ventricular tachycardia), appropriate and inappropriate-25% (torsades de pointes followed by inadequate electric shocks for sinus tachycardia), and exclusively inappropriate- 50% (post effort sinus tachycardia and the detection of interference signals due to fracture of the stimulation/ detection electrode). In 60% of the cases the ICD replacement was elective (as a result of depleted battery) and in 20% of cases, the replacement was for defibrillator lead malfunction.

Conclusion. Arrhythmic recurrences were detected only in patients diagnosed with long QT syndrome, in which both appropriate and inappropriate therapies had been found. In most cases the replacement of the device had been chosen due to the need of battery replacement.

Keywords: arrhythmogenic channelopathies, implantable cardioverter-defibrillator, arrhythmic recurrences, ICD replacement

DETERMINATION OF CYTOTOXIC T-LYMPHOCYTE-ASSOCIATED PROTEIN-4 EXPRESSION IN HUMAN GLIOBLASTOMA

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Introduction. The immune response is downregulated by protein receptors, functioning as an immune checkpoint. In recent years inhibitory checkpoint molecules have been increasingly perceived as targets for new therapeutic strategies. Gliomas are the most frequent primary brain tumors, and for highly malignant gliomas (World Health Organization grade III and IV) there is not an available effective therapeutic procedure - patients survive an average of about a year even with multidirectional therapies. Although gliomas are immunogenic tumors, they are not efficiently eliminated by the immune system. That is why, in context of this study we have focused on Cytotoxic T-lymphocyte-associated protein 4 (CTLA-4) as the crucial regulator of T cell activation and immune tolerance. This molecule has been investigated mainly in terms of the occurrence on immune cells, yet its presence was also demonstrated on the cell surface of various solid tumors. Our research was aimed at the evaluation of CTLA-4 expression within the glial tumor mass, due to its presumably significant role in initiating and maintaining the neoplastic process.

Material and methods. We have performed immnuhistochemical tests aimed at the evaluation of CTLA-4 expression within samples from 163 patients with glioblastoma, who underwent a surgical biopsy. The intensity of immunostaining was evaluated in random 15 fields under 20x magnification and scored semi- quantitatively: none – 0, positive – 1, strongly positive – 2.

Results. Immunostaining revealed cytoplasmic diffuse localization in nearly 60% of analyzed cases (97 from 163 cases), where within over 20% examined slides the expression was strong.

Conclusion. The novel finding that CTLA-4 molecule is expressed on human glioblastoma cells may contribute to the further refinement of targeted therapies for improved outcomes in patients with high-grade gliomas.

Keywords: glioblastoma, brain tumor, CTLA-4, immune checkpoints

7 CASES OF LIMASSOL HEMOGLOBIN IN A ROMANIAN FAMILY

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Introduction. More than 850 types of hemoglobin (Hb) have been described up to now, some of them being considered non-pathological, such as Limassol Hemoglobin, which was described in the medical literature in just one case from Cyprus in 2001. We discovered 7 cases, part of the same family, everyone presenting different associated pathologies. Our purpose was to find a possible link between the presence of Limassol Hb and other diseases.

Material and methods. We used Alkaline electrophoresis test kit (Interlab.Italy) intended for the separation of normal hemoglobin (A1, A2, F), as well as certain abnormal or variant hemoglobin (S, D, C, E) on agarose gel at alkaline pH. To identify correctly the position of normal and variant hemoglobin, an internal control (SCE127E AFSA2 Control, Interlab) was included in each run, displaying the following migration pattern from cathode to anode: HbA2, HbS, HbF, HbA. HbC, HbE and HbO-Arab have a similar mobility to HbA2 while HbS, HbD, HbG and Hb Lepore will migrate in the same position. Molecular studies were then carried out to identify the mutation that gives rise to this Hb variant. The beta-globin gene (HBB variant p.Lys9 Asn) was analyzed by PCR and bidirectional sequencing of the coding region and exon-intron splice junctions.

Results. In our patient, a fast-hemoglobin comprising 45.4% of the h emoglobin was identified at two different test runs. The same abnormal fraction was detected in the patient´s mother and the other five relatives, all with normal cell blood count.

Conclusion. Due to the fact that in the investigated family 7 cases of Limassol hemoglobin existed, including both sexes, it is probable that the Limassol Hemoglobin is a X-linked dominant disorder. Also, the presence of genetic diseases, cancer and autoimmune diseases in this family raises many questions regarding the non-pathological nature of Limassol Hb.

Keywords: Limassol hemoglobin, HBB gene, Lys9Asn

NON-INVASIVE ASSESSMENT OF LIVER STIFFNESS IN HEALTHY SUBJECTS USING SUPERSONIC SHEAR WAVE ELASTOGRAPHY

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COORDINATOR: PLATON LUPSOR MONICA

Introduction. Real time shear wave elastography (RTSWE) is a novel, non-invasive method to assess liver fibrosis (LF) by measuring liver stiffness (LS). The aim of the current study was to define the mean value of LS measured by Supersonic shear wave elastography (SSWE) in healthy subjects and to assess its potential dependence on sex, age and body mass index (BMI).

Material and methods. The study group included a total of 48 healthy subjects, (64% female, mean age: 46±14.47 years) without clinical or biological evidence of hepatic disease, whose liver biopsies (performed in 18 subjects) excluded the presence of LF, being classified according to the Metavir score as F0. They were prospectively referred to LS quantification à jeun, using the Aixplorer US System (Supersonic-Imagine-S.A., Aix-en-Provence, France) with a convex broadband probe (SC6-1), in the right intercostal space, 4 cm in depth. The median value of five valid measurements was considered (quantified in kPa).

Results. The normal liver elasticity varied between 3.5-6.3 kPa. The mean value of LS was 4.76±0.61 kPa and did not differ significantly between the sex groups (4.73±0.62 kPa for women, n=31, respectively 4.82±0.61 kPa for men, n=17, p=0.647). Our study also confirmed no correlation between LS and age (r=0.133, p=0.373) or BMI (r=0.006, p=0.968).

Conclusion. The mean normal value of the LS assessed with Supersonic SWE in histologically proven normal livers is 4.76±0.61 kPa. The potential confounding factors that we considered (sex, age, BMI) had negligible effects on the liver stiffness values.

Keywords: liver stiffness, Supersonic Shear Wave Elastography, healthy subjects

T2-WEIGHTED MRI EVALUATION IN ACROMEGALY

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COORDINATOR: GHERVAN CRISTINA

Introduction. Acromegaly represents a rare condition of persisting secretion of GH (growth hormone) from a pituitary adenoma, which can be either a micro- or a macroadenoma on the MRI (magnetic resonance imaging). The aim of this study was to evaluate these adenomas according to the T2-weighted signal intensity on the MRI.

Material and methods. We conducted an observational, analytic, retrospective, cohort-type study, where we included 46 acromegalic patients with a mean age of 50.34 ± 11.61 years, 31 of which who followed surgery. The patients were divided according to the T2-weighted MRI signal intensity in hypointense, hyperintense and isointense and were evaluated after surgery and after 12 months with SSA (somatostatin analogs) therapy. The statistical analysis was performed using a R version 3.2.3 (2015-12-10). A value of $p<0.05$ was considered to have statistical significance.

Results. Age at diagnosis, tumor volume and hormonal values were similar for both men and women. The GH values at diagnosis were higher in macroadenomas compared to microadenomas ($p=0.05$). In T2-weighted sequences, the most frequent adenomas were hypointense (50%). A significant statistic correlation was found between GH levels and tumor volume before and after surgery (Spearman=0.64, r2=0.56, $p<0.0001$, Spearman=0.74, r2=0.79, $p<0.0001$, respectively). The highest percentage of optimally controlled patients with SSA treatment was in hypointense pituitary adenomas (50%). The percentage of uncontrolled patients decreased from 58.7% after surgery to 28.58% after 12 months with SSA analogs.

Conclusion. The most frequent GH-secreting pituitary adenomas on T2- weighted MRI sequences are hypointense, which present a better therapeutic response after surgery and after long-term medical treatment, than the hyper- or isointense adenomas.

Keywords: acromegaly, T2-weighted MRI, somatostatin analogs

THREE DELIRIOUS DAYS IN THE ICU - FIRST TRANSVERSAL STUDY IN ROMANIAN INTENSIVE CARE UNITS REGARDING DELIRIUM

AUTHOR: VLASIE MARICELA
COORDINATOR: COPOTOIU SANDA-MARIA

Introduction. It is known that because delirium is an acute alteration and fluctuating disturbance of consciousness, it is a complex neuropsychiatric syndrome. From all the hospitalized patients in the intensive care unit (ICU) it is estimated to have a incidence of up to 80% and particularities that could influence mortality, especially morbidity in overlooked patients.

Material and methods. A pilot transversal study was conducted in the ICU of Tirgu Mures County Emergency Hospital to identify patients presenting clinical forms of delirium. In randomly selected 3 day periods from December 2016 to April 2017, patients with a length of stay longer than 48 hours were evaluated using the Confusion Assessment Method for the intensive care unit (CAM-ICU) and Intensive Care Delirium Checklist (ICDSC). Those with a positive diagnosis were further monitored to assess their condition. In order to avoid misdiagnosis or misinterpretation of the manifestations, patients with dementia or other neurological severe pathology were excluded, such as stroke or craniocerebral trauma.

Results. Delirium was found in 30 patients - mainly elderly (63.33%), and mechanically ventilated patients (63.33%). Hallucinations, delusions, psychomotor agitation or retardation were some of the manifestations the eligible patients presented, the most common being inappropriate speech or mood (83.33%), followed by sleep-wake cycle disturbance (73.33%) and disorientation (70%). Evaluating the subtypes of clinic delirium, the less represented in our population was hyperactive (16.66%), most patients presenting the hypoactive subtype (50%) and the mixed (33.33%).

Conclusion. Although it is a common condition in the ICU, delirium often remains underdiagnosed. A correct and complete evaluation with the proper tools can have a positive effect on both the patient, by increasing their chances for a better outcome, and the hospital by avoiding additional costs generated by all the complications involving delirium.

Keywords: delirium, ICU, ICDSC, CAM-ICU

CURRENT STATUS OF ANGIOTENSIN RECEPTOR BLOCKERS AS THERAPEUTIC OPTIONS FOR ALZHEIMER'S DISEASE

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COORDINATOR: GHICIUC CRISTINA

Introduction. Recent studies have shown that some antihypertensive medications are associated with a significant reduction in the incidence of Alzheimer's disease. Because growing evidence suggests that angiotensin II receptors blockers (ARBs) effectively inhibit oxidative stress, amyloid beta protein (Aβ) metabolism and tau phosphorylation in animal brain, ARBs are considered to be a potential candidate for the treatment of Alzheimer's disease. However, it remains uncertain whether antihypertensive drugs, specially ARBs may have a preventive effect on cognitive decline in patients with Alzheimer's disease.

Material and methods. This review summarizes existing evidence regarding the plausibility of using angiontensin receptor blockers as a strategy to treat Alzheimer's disease and highlights unresolved aspects to such approaches, namely the potential impact of altering angiotensin II-mediated processes in the central nervous system. We searched the latest clinical trials in PubMed, which had evaluated the benefits of ARBs on cognitive decline and compared the results.

Results. ARBs reduce major risk factors for Alzheimer's disease, controlling hypertension, limiting stroke damage and ameliorating diabetes. Studies reported that ARBs have superior neuroprotective benefits, delaying disease progression and preserving executive function and cognition better than other antihypertensive drugs.

Conclusion. In conclusion, the results of studies evidenced that ARBs may delay decline progression in patients with Alzheimer's disease and at a lower incidence, this hypertensive class may offer a new therapeutic strategy of Alzheimer's disease.

Keywords: cognition, Azheimer's disease, antihypertensive drugs, angiotensin receptor blockers

THROMBOCYTOPENIA IN CHRONIC VIRAL HEPATITIS B OR C AND END-STAGE RENAL DISEASE

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COORDINATOR: ORĂȘAN OLGA HILDA

Introduction. Thrombocytopenia (TCP) is a potential complication of chronic viral hepatitis (CVH) and of hemodialysis in patients with end-stage renal disease (ESRD). Patients with both CVH and ESRD have a slower progression of the liver disease when compared to patients with CVH only. We aimed to study the prevalence and risk factors of TCP in patients with both CVH and ESRD in comparison with patients that are affected by ESRD only.

Material and methods. A retrospective, transversal study was made to evaluate the prevalence of thrombocytopenia in a group of 50 patients with CVH and ESRD and a group of 25 patients with ESRD only. We evaluated the correlation between platelet count and age, dialysis vintage, serum levels of alanine aminotransferase (ALT), aspartate aminotransferase (AST), albumin, C-reactive protein (CRP), and liver stiffness measurements (determined by transient elastography).

Results. Mean platelet count between both groups was not significantly different (168,316/mm3 vs. 179,068/mm3, $p = 0.466$), yet patients with CVH and ESRD had an increased risk of TCP (OR = 3.41, $p = 0.046$, CI = 1.01 to 9.7). Platelet count correlated positively with age (Spearman's correlation coefficient $\rho = 0.38$, $p = 0.005$), CRP levels ($\rho = 0.31$, $p = 0.026$), and correlated negatively with transient elastography measurements ($\rho = -0.31$, $p = 0.024$). A CRP value above 10 mg/dL was associated with a lower prevalence of TCP in patients with CVH and ESRD (OR = 0.18, CI = 0.03 to 0.93, $p = 0.044$).

Conclusion. Infections with hepatitis B and C viruses are associated with a higher prevalence of TCP in patients with ESRD. Platelet counts increase with age and CRP values, but start to go lower once liver fibrosis is more advanced.

Keywords: thrombocytopenia, chronic viral hepatitis, end-stage renal disease

THE IMPORTANCE OF IMPLEMENTING THE CORRECT WOUND CARE PROTOCOL TO SHORTEN THE WOUND CARE HEALING TIME

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COORDINATOR: GALLABY KAISSER

Introduction. Acute wounds are wounds that heal unremarkably within a predicted amount of time. Chronic wounds begin as acute wounds that end in lengthy recovery and it is usually accompanied by comorbidities. A UK study revealed the annual incidence of chronic wounds are 575 600, with a total annual cost of £2.3 - 3.1 billion Chronic wounds were reported to be one of the most common cause of morbidity. All of this proves that to reduce the cost of chronic wounds the treatment aim should be to reduce the time of healing. The aim is to encourage health care workers to implement a wound care protocol to reduce the healing time, which will ultimately reduce the cost of chronic wound care.

Material and methods. Patients were divided into 2 groups: Group 1 were patients with chronic wounds and comorbidities and group 2 were patients with acute wounds. The comorbidities of the patients in group 1 were identified. Then the TIME protocol was used to make a comprehensive assessment of each wound and determine an accurate treatment plan. Patients were followed-up every 3-4 days and the treatment plan adjusted accordingly.

Results. 9 patients agreed to take part in the study. Out of 9, 8 patients were with chronic wounds. The TIME protocol was implemented correctly in 3 of the 5 patients whose wounds healed in a significantly shorter time. Out of the 2 patients with hypertension only, 1 had a more rapid healing process. The most significant improvement was seen in the patient with both hypertension and diabetes. This wound had persisted for 12 years, but once the protocol was implemented correctly, the wound healed within 4 months.

Conclusion. By implementing the TIME wound care protocol correctly, the time of healing of chronic wounds can be significantly reduced.

Keywords: chronic wounds, wound care, wound healing time, wound care protocol

THE EFFECTIVENESS OF HEALTH EDUCATION AMONG POST-PERCUTANEOUS CORONARY INTERVENTION PATIENTS.

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Introduction. Percutaneous coronary intervention (PCI) correlates with very good short to medium-term prognosis in patients with coronary artery disease (CAD), but there is still very high readmission rate during the first five years after the procedure. PCI enables shorter hospital stay and recovery period, often providing immediate relief from the symptoms. It has been shown that undergoing PCI is a predictor of nonattendance at cardiac rehabilitation and correlates with poor adherence to lifestyle change.

Material and methods. We performed a survey of 150 consecutive patients undergoing PCI and collected data on participants' demographics, clinical details, CAD risk factor profile, and CAD risk knowledge as measured using our original 56- item questionnaire. Bivariate and multivariate analyses were used to analyze the influence of clinical and sociodemographic factors on the level of patients' knowledge and risk factors' control.

Results. The study sample comprised 150 participants, 72% male, with mean age 68 ± 11 years. 59% of patients had undergone PCI prior to current hospitalization. The average knowledge score was 61.6% in the group with prior PCI and 58.4% in the group undergoing first-time PCI. The average score for risk factors control was 40% in post-PCI and 33.3% in pre-PCI group respectively. The differences between the groups were not statistically significant. There was no statistically significant correlation between the level of knowledge and the actual prevalence of CAD risk factors among the participants. We found that 52.5% of the post-PCI patients had not attended any form of rehabilitation, which correlated with poor control of CAD risk factors ($p=0.02$).

Conclusion. Our results indicate that current models of post-procedural education do not affect the patients' knowledge adequately and do not result in recommended lifestyle changes. It is essential to identify patients undergoing PCI as a priority group for further education and to extend the educational programs to the patients' nearest relatives.

Keywords: percutaneous coronary intervention, coronary artery disease, secondary prevention, cardiovascular risk profile

CLINICAL MANIFESTATIONS AND EVOLUTION OF A DYSTROPHIC EPIDERMOLYSIS BULLOSA PATIENT DURING 4 YEARS OF LIFE – A CASE REPORT

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COORDINATOR: DROCHIOI ANA – SIMONA

Introduction. Epidermolysis bullosa (EB) is a rare and thus far incurable group of genetic disorders, affecting mainly the skin and mucosal membranes, manifesting with blisters triggered by minor mechanical trauma. Dystrophic epidermolysis bullosa (DEB) is one of the major forms of EB. The signs and symptoms of this condition vary widely among affected individuals.

Material and methods. We present the case of a 4 year and 7 month old patient, diagnosed with DEB in his first month of life. The authors traced his medical condition - from birth to present - using medical records from his numerous hospital admissions in different clinics: The Emergency Clinical Hospital For Children ”Sf. Maria” Iasi, the pediatric section of ”Mavromati” Emergency Hospital Botosani, and ”Ospedale Pediatrico Bambino Gesu” Rome.

Results. Throughout all ten admissions, the patient was diagnosed with various complications of the underlying disease, for example, esophageal stenosis, chronic constipation, total left hallux onycholysis, but also with some other immune or infectious overlaying pathologies: interstitial pneumonia, submandibular adenoflegmon, alergodermy etc.

Conclusion. This case represents a challenge for the medical personnel and often requires a multidisciplinary effort due to the complexity and the debilitating aspects of DEB, which strongly impacts the life of the patient and his family.

Keywords: epidermolysis bullosa, DEB, evolution, complications

BEHAVIORAL DIFFERENCES BETWEEN HEALTHY MICE USING THE TAIL SUSPENSION TEST

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CO-AUTHOR: VLAD IONUȚ-VIOREL
COORDINATOR: TRIPON FLORIN

Introduction. Several published case-control studies investigated some of the potential antidepressant or anti dementia drugs using the Tail Suspension Test (TST) and various mice strains. From the best of our knowledge, there are no studies aiming at highlighting the variability of mice responses to TST. The aim of our study was to evaluate the natural variability of mice based on our test results.

Material and methods. We obtained the approval of the study from the Ethical Committee of the University of Medicine and Pharmacy from Tîrgu Mureş, Romania. Thirty healthy mice were enrolled. The mice were suspended thirty centimeters (cm) from the ground. For suspension, we used a black box made of wood with the following dimensions: 50 cm height, 50 cm length and 50 cm width. In order to detect the outliers we use the Grubbs test with a standard significance level of alpha value.

Results. The mean number of stationary was 8.5 with a standard deviation of +/- 4. The mean time for one stationary was 16.11 seconds with a standard deviation of +/- 12 seconds. The Grubbs test detected four (12%) outliers. Their physiological needs were not associated with the responses to TST.

Conclusion. In order to have accurate results in a case-control study, according to our results, it is necessary to exclude approximately 12% of mice from the TST due to their natural variability. The omission of this step can influence the targeted outcomes.

Keywords: tail suspension test, mice, natural variability

PELVIC CONGESTION SYNDROME: STILL AN UNDER-DIAGNOSED CONDITION. WHAT IS THE ROLE OF ULTRASOUND?

AUTHORS: CHIRILĂ CRISTIAN NICOLAE, GLIGA PAULA MARIA
COORDINATOR: GLIGA MIRELA LIANA

Introduction. Pelvic congestion syndrome (PCS) or pelvic vein incompetence is a complex medical condition consisting of constant pelvic pain which lasts more than six months, worsens at the end of the day and while sitting or standing. The intensity of the pain can vary from dull to aching with temporary flares. This syndrome is associated with pelvic venous insufficiency and varicose veins in the thigh, gluteal or vaginal region. Our aim was to describe four cases of women who presented symptoms of chronic pelvic syndrome, to assess the symptomatology related to enlargement or anatomic abnormalities of the pelvic veins (especially the left ovarian vein) and to establish a correlation between the symptoms and the ultrasound (US) findings.

Material and methods. We included in our study four female patients aged between 25 and 53 admitted to our Internal Medicine Department for chronic pelvic, lumbar pain and deep venous thrombosis. In their case, we could describe abdominal vascular malformations when performing US examination using a Philips HD11 device.

Results. In the first case of a 25-year-old woman a dilated left ovarian vein mimicked a nutcracker syndrome that caused the lumbar pain associated with pelvic pain. The second patient, a 42-year-old woman, had the left ovarian vein dilated which caused chronic pelvic pain. The third case, a woman who took oral contraceptives, was diagnosed with deep vein thrombosis and we could also detect pelvic varicositis. The last case, a 53-year-old patient, had an abnormal retro-aortic position of the left renal vein with antegrade dilatation.

Conclusion. Pelvic venous abnormalities may be associated with venous congestion, stasis and increased hydrostatic pressure in the dilated veins which can lead to painful symptoms or it can be completely asymptomatic. Consequently, the transabdominal US exploration facilitates the positive diagnosis of PCS as an easy, non-invasive, cost-effective and repetitive exploration.

Keywords: pelvic congestion syndrome, pelvic venous insufficiency, ultrasound

Fundamental Science

GENETIC ASSOCIATION OF ADIPOQ 276G>T GENE VARIANT WITH TYPE 1 DIABETES AND TYPE 2 DIABETES. A CASE- CONTROL STUDY IN A NORTHERN ROMANIAN POPULATION

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COORDINATOR: PETRISOR MARIA-FELICIA

Introduction. Various genetic variants have been studied in relationship with type 1 diabetes (T1D) and type 2 diabetes (T2D). Gene polymorphisms of adiponectin have been demonstrated to have an important role on the plasma adiponectin level and activity, being the most abundant adipose tissue-derived cytokine. It has anti-inflammatory, anti-diabetic and anti-atherogenic properties, and low circulating levels are associated with T1D and T2D. The current project was aimed at investigating peculiarities of distribution of ADIPOQ 276G>T gene variant polymorphism with both types of diabetes and analyzing possible associative links between the carrier status and the clinical onset and evolution of diabetes in a Caucasian population group.

Material and methods. A total of 155 diabetic patients were enrolled in this study and assigned to two groups: T1D group (n=55) and T2D group (n=100). In addition, 100 healthy subjects were chosen as a healthy normal control. Genotypes were determined by PCR-RFLP followed by specific enzymatic digestion of the amplicons and gel electrophoresis for the resulting DNA fragments. Statistical analysis of data was performed with SPSS version 20.0 software.

Results. Statistical and comparative analyses for dominant and recessive models of ADIPOQ 276G>T polymorphism did not reveal a significant risk of T1D ($\chi 2$=1.14, P=0.06, [OR] =1.09, 95% [CI]=0.892 and a borderline risk for T2D ($\chi 2$=2.221, P=0.045, OR =1.2, 95% [CI] =1.175 - also, comparative analysis of the recessive model revealed that the variant GG genotype of ADIPOQ gene is more frequently associated with T2D then T1D ($\chi 2$=3.835, P=0.04, OR=0.447, 95% [CI]=0.197–1.015).

Conclusion. These results suggest that the ADIPOQ gene 276G>T polymorphism may be associated with susceptibility to T1D and T2D in a Caucasian population group. However, it is still necessary to conduct larger sample studies using standardized unbiased genotyping methods and to explore the association among different ethnicities in the future.

Keywords: adiponectin, type 1 diabetes mellitus, type 2 diabetes mellitus, single nucleotide polymorphism

EFFECTS OF ARTEMISIA ABSINTHIUM IN EXPERIMENTAL INFLAMMATION

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COORDINATOR: PÂRVU ALINA ELENA

Introduction. Previous studies have identified the positive effect of the Arthemisia absinthium in infections, wounds healing and rheumatic pain. Therefore we tested the A. absinthium total extract for its effect in acute experimental inflammation, especially focused on nitro-oxidative stress.

Material and methods. The anti-inflammatory activity of the tincture from A. absinthium was tested in acute inflammation induced with turpentine oil (i.m. 0.6 ml/100 g b.w.) in male Wistar rats. The animals were divided into six groups. The tinctures were tested in three dilutions (100%, 50%, 25%). The results were compared with those from a negative control group, a positive inflammation group, and a group treated with diclofenac (30 mg/100 g b.w.). The effects were evaluated by measuring the Malondialdehide (MDA), the Nitric oxide (NO), the Total antioxidant reactivity (TAR), Total antioxidative capacity (TAC), Nitrites, total thiols, Oxidative Stress Index (OSI) and Thiols (SH).

Results. Compared to the control, inflammation caused a significant nitro-oxidative stress by increasing OSI, TOS, NO and MDA and a SH reduction. A. absinthium 100%, 50% and 25% extract dilutions reduced significantly OSI, TOS and NO. The 50% extract had a better inhibitory effect than diclofenac. Only A. Absinthium 50% reduced MDA. The A. Absinthium extract had no significant effect upon TAR. A. Absinthium increased significantly SH.

Conclusion. A. Absinthium extract had a significant inhibitory effect on the nitro- oxidative stress induced by acute inflammation through OSI, TOS and NO reduction and SH increase. The antinitro-oxidative stress effect was better than that of Diclofenac for A. Absinthium 50%.

Keywords: artemisia absinthium, acute experimental inflammation, nitro- oxidative stress

LESS IS MORE – RETINOIC ACID STROMAL METABOLIC BYPASSING IN ACUTE MYELOID LEUKAEMIA DIFFERENTIATION THERAPY

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Introduction. All-trans retinoic acid (ATRA) is one of the first and most successful differentiation therapies developed for acute myeloid leukaemia (AML). In combination with anthracyclines, and more recently by the development of arsenic trioxide containing regimens, ATRA has revolutionised the therapy of a type of AML, acute promyelocytic leukaemia (APL), now characterized by complete remission rates of 90% and cure rates of 80%, even higher among low-risk patients. In order to better understand and improve ATRA's pharmacodynamics at the level of the leukaemic bone marrow niche, we developed a liposomal form of ATRA, L-ATRA and assessed its efficacy in an in vitro model of leukaemic bone marrow niche.

Material and methods. We first generated stable <200 nm liposomes containing ATRA by evaporating the solvent out of mixture DSPC:cholesterol:ATRA, then dispersing the lipid in TBS buffer followed by purification using 0.22 μm cell culture media filters. Afterwards, we treated a co-culture of APL blasts and bone- marrow stromal cells with ATRA, L-ATRA, and empty liposomes at concentrations ranging from 10-10M to 10-6M, for 72h and assessed the expression of differentiation markers CD11b and CD38 via flow cytometry and the clonogenicity of the treated APL blasts via a colony forming assay.

Results. L-ATRA 10-7M may be a better differentiation agent than ATRA 10-7M in co-cultures

(CD38 fold increase 2.25 vs 1.27 - $p<0.001$) but L-ATRA 10-6 M is as effective as L-ATRA 10-7 M in the same conditions (CD38 rel. fold increase 2.25 vs 1.12 - $p=0.061$). L-ATRA 1-07M is not superior to ATRA 10-7M when it comes to lowering clonogenic activity of APL blasts.

Conclusion. L-ATRA seems to mitigate the stromal retinoid metabolism, but not in a dose dependent manner, highlighting the hypothesis that higher concentrations of L-ATRA could trigger an intensified phagocytic response from the stroma cells and limit the availability of L-ATRA.

Keywords: ATRA, liposomes, stroma, differentiation

SYNERGISTIC EFFECTS OF LOW DOSES OF CODEINE – FLURBIPROFEN ASSOCIATION IN SOMATIC NOCICEPTION IN MICE

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Introduction. Codeine, the second-most predominant alkaloid found in opium after morphine, is a weak analgesic and cough suppressant agent. Like morphine, it binds to opioid receptors in the brain, increasing tolerance to pain and decreasing discomfort. Flurbiprofen, a nonsteroidal anti-inflammatory drug, belonging to the group of phenyl alkanoic acid derivatives, inhibits the enzyme cyclooxygenase. It possesses an anti-inflammatory, analgesic, and anti-pyretic activity, being used to treat inflammation and pain. Aim: An experimental research study on the effects of low doses of codeine and flurbiprofen association in somatic and visceral pain models in mice.

Material and methods. The experiment was carried out with white Swiss mice (20-25g), distributed into 4 groups of 7 animals each, treated subcutaneous with the same volume of solution, as follows: Group I (Control): saline solution 0,1ml/10g weight; Group II (COD): codeine 15 mg/kbw; Group III (FBF): flurbiprofen 5 mg/kbw; Group IV (COD+FBF): codeine 15 mg/kbw + flurbiprofen 5 mg/kbw. To assess codeine and flurbiprofen-induced somatic antinociception the tail flick test was used. The classic model of visceral pain consists of a writhing test using diluted acetic acid (0.6%). Data were statistically analyzed using SPSS 13.0 variant for Windows.

Results. The administration of codeine-flurbiprofen association resulted in a prolongation of latency time response to noxious thermal tail stimulation, statistically in comparison with the control group, the single administration of codeine and flurbiprofen in the tail flick assay. In our experimental conditions, the association of codeine and flurbiprofen determined a decrease of behavioral manifestations, statistically significant compared to control, codeine and respectively flurbiprofen groups in the writhing test.

Conclusion. Low doses of codeine and flurbiprofen exhibited weak antinociceptive effects in both the tail flick assay and the writhing test. Subcutaneously co- administration of low doses of codeine and flurbiprofen resulted in a significant enhancement of antinociceptive effect in the tail flick and the writhing test, compared with the separate administration of codeine and flurbiprofen in low doses.

Keywords: codeine, flurbiprofen, tail flick, writhing test

STATINS IMPROVE ENERGY SUPPLY OF THE NEPHRON CELLS VIA ANTIOXIDANT EFFECT UNDER THE CONDITIONS OF THE ACUTE KIDNEY INJURY

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Introduction. One of the approaches of the pharmacotherapy of acute kidney injury (AKI) is the use of drugs with antioxidant properties. Statins can prevent lipid peroxidation and disturbances of the mitochondrial energy generation. Thus, our research study was targeted at the examination of the impact of statins on the linkage between oxidative stress and impaired energy metabolism under the conditions of AKI.

Material and methods. The experiment was carried out on 40 white nonlinear male rats weighing 140-180 g. Statins (atorvastatin, simvastatin and lovastatin) at 20 mg/kg were administered intragastrically daily for 3 days before the surgery. Renal ischemia-reperfusion injury was initiated during anesthesia: median laparotomy followed by 75-minute clamping of the left renal pedicle and reperfusion for 24 h. The renal function was assessed immediately after reperfusion under the conditions of induced diuresis.

Results. Activation of the free radical oxidation led to the energy metabolism imbalance and decrease in the activity of succinate-coenzyme Q reductase (SQR) in the kidney tissue of untreated animals by 2.6 times. The latter fact was verified by an inversed correlation ($r = -0.88$) between the content of malondialdehyde in the kidney tissue and the SQR activity, as well as by the direct correlation ($r = 0.72$) between the activity of glutathione peroxidase and SQR. Concerning the antioxidant effects of statins, achieving the activation of SQR: by 2.2 times (atorvastatin), by 1.7 times (lovastatin), and by 2.3 times (simvastatin) was managed. Furthermore, the prevention of kidney damage was achieved due to the antioxidant effects of statins. To illustrate: the glomerular filtration rate increased by 2.7 times, the fractional excretion of sodium was reduced below 1% and proteinuria was reduced by 2 times (average for all statins), as compared with untreated animals.

Conclusion. Statins, due to their antioxidant effect, restored disrupted energy metabolism in the nephron and ameliorated AKI.

Keywords: statins, acute kidney injury, renal protection, antioxidant effects

NANAOMYCIN A – TARGETED EPIGENETIC THERAPY IN TRIPLE NEGATIVE BREAST CANCER

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Introduction. Triple negative breast cancer (TNBC) defines a subtype of breast cancers that do not express estrogen receptor (ER), progesterone receptor (PR) and HER2, thus not benefiting from currently existing hormone and targeted therapies. Recent studies in the epigenetics of TNBC show that there is an overexpression of DNMT3b, a de novo DNA methyltransferase, which may be responsible for the aggressive behavior of these tumors. A specific inhibitor of DNMT3b, nanaomycin A, has shown promising results on bronhopulmonary, colon and acute myeloid leukemia cell lines. Our aim is to assess the effect of nanaomycin A on TNBC cell lines.

Material and methods. We have assessed the effect of nanaomycin A and standard chemotherapeutics paclitaxel and doxorubicin on the proliferation of two TNBC cell lines – MDA-MB-231 and HS578T - and one ER positive cell line –MCF7 - using an MTT assay. IC50 were calculated at 24h, 48h and 72h. Results were analyzed using GraphPad Prism.

Results. An inhibitory effect of nanaomycin A was observed on the proliferation of MDA-MB-231 and MCF7 cell lines at concentrations comparable to those in existing literature.

Conclusion. Nanaomycin A is a newly characterized specific inhibitor of DNMT3b which inhibits the proliferation of breast cancer cell lines. DNMT3b may prove to be a new epigenetic target in TNBC.

Keywords: triple negative breast cancer, epigenetics, nanaomycin A, DNMT3b

NOVEL DETECTION OF MIR-155 BASED ON GOLD NANOPARTICLE AGGREGATION METHOD

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COORDINATOR: SADRODDINY SADRODDINY

Introduction. MicroRNAs (miRNAs) can play an important role in the diagnosis of various diseases including cancers. Because of their small size, there are some challenges with regard to detecting them. The gold nanoparticle aggregation is one of the techniques for the detection of micro RNAs. This method has been demonstrated to have enhanced specificity and sensitivity as compared with conventional methods. Mir-155 play a critical role in many of cancers and other diseases. In this study, we designed a cross-linking gold nanoparticles aggregation method for detection of mir-155.

Material and methods. For doing this thesis, Citrate-coated AuNPs were prepared according to the procedure described by Turkevich et al. Thiolated capture probe was designed and synthesized. Probe was attached to gold nanoparticles by covalent binding. Then Nano-probes were mixed with different concentrations of synthetic miR-155 and Calibration curve was plotted.

Results. The detection was done in different concentration and the Limit of detection was defined. According to the results 10 nano molar of target miRNA concentration was determined by this method. The specificity of this method was confirmed by the comparison of detection of targeted miRNA with random synthetic miRNA.

Conclusion. Sensitivity and specificity of the gold nanoparticle aggregation method is suitable for detection. Using this method, we enabled the detection of specific miRNA with nanomolar sensitivity.

Keywords: microRNAs, cancer, gold nanoparticles, limit of detection

ALPHA-1 ANTITRYPSIN GENE VARIATIONS AND GOUTY INFLAMMATION

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Introduction. Gout is caused by genetic and environmental factors that contribute to severe attacks of painful arthritis. Uric acid crystals play the main role in the pathogenesis of gout, but, most interestingly, only a small part of hyperuricemic patients develop the disease. This led us to the hypothesis that genetic factors that modulate the inflammatory reaction could be important new susceptibility candidates. Alpha-1 antitrypsin (A1AT), a protease inhibitor, is functionally proven to limit gouty inflammation. We hypothesized that polymorphisms in *SERPINA1* (the A1AT gene) that lead to a decrease in activity may enhance autoinflammation and increase the risk of gout.

Material and methods. We conducted a case-control study to assess the role of *SERPINA1* rs28929474 and rs17580 polymorphisms in relation to the susceptibility of developing gout in hyperuricemic patients. A total of 59 patients diagnosed with gout and 29 hyperuricemic controls were included after obtaining written informed consent. Genotyping was performed using Multiplex Polymerase Chain Reaction - Restriction Fragment Length Polymorphism. The results were analyzed using Fisher's exact test.

Results. Our method was able to detect one heterozygote for each polymorphism per group; all the other patients tested were homozygous for the wild-type alleles. This reflects a minor allele frequency of 1.13% for both polymorphisms over the two groups combined and the presence of at least one minor allele in the genotype determines an Odds Ratio of 0.4828 (CI 0.0291 to 8.0051).

Conclusion. Our study is the first that evaluates this hypothesis in the Romanian population and has the major advantage of including hyperuricemic controls. Our pilot data showed no statistically significant difference in the distribution of the two *SERPINA1* polymorphisms studied between gout patients and hyperuricemic controls. Nevertheless, A1AT remains a major research platform, because other genetic or epigenetic variations within this gene are promising candidates that can play an important role in gout susceptibility.

Keywords: gout, hyperuricemia, alpha-1 antitrypsin, SERPINA1 polymorphisms

CONTRIBUTIONS TO THE STUDY OF THE ANATOMY OF THE INNER EAR

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Introduction. Membranous labyrinth of arterial blood vessels originated from within the cranial cavity, being secured by labyrinthine artery, which most often is a branch of the anterior cerebral artery intero-bottom. After each labyrinthine artery divides into its branches, clinical signs vary depending on the portion obstructed artery. So modiolar spiral artery obstruction will cause hearing loss at low frequencies and vestibulocohlear artery obstruction will cause hearing loss at high frequencies and vertigo due to cochlear ischemia which stops the secretion of potassium by ATP-dependent ion pumps inducing a decrease in potential endolymph.

Material and methods. We conducted on the corpses of fetuses, newborns and adults in the discipline of Anatomy, Department of Morphological Sciences, University of Medicine and Pharmacy of Craiova. To highlight the vascular system of the inner ear, the technique of dissection using operating microscope images were captured using a video camera attached to the microscope operator and processed using specialized software Photoshop.

Results. After analyzing retail neurovascular items available, we discovered the existence of several anatomical variants of vascularity of the inner ear, showing a labyrinthine artery anatomical variability in terms of its origin and its path. Thus, after a laborious analysis of the provision labyrinthine artery internal acoustic meatus inside, the presence of a uni rich plexus around the facial nerve was noticed and the internal acoustic meatus deep vestibulocohlear.

Conclusion. From the study of neurovascular elements around the internal acoustic meatus we can conclude: all cases had a dissected arterial meatal loop; meatal loop pressure can be formed anterior-inferior cerebellar artery or the artery labyrinthine; in terms of relations with the meatal loop pressure, we encountered the following types of location: intrameatal pressure loop; extrameatal pressure loop located among the items internal acoustic meatus nerve; extrameatal pressure loop located away from any internal acoustic meatus nerve.

Keywords: inner ear, internal acoustic meatus nerve, membranous labyrinth, endolymph

THE MODULATORY EFFECTS OF SPIRONOLACTONE ON OXIDATIVE STRESS AND INFLAMMATION IN THE PERIOVARIAN ADIPOSE TISSUE OF PCOS-INDUCED RATS

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COORDINATOR: FILIP GABRIELA ADRIANA

Introduction. Polycystic ovarian syndrome (PCOS) is a heterogeneous medical condition that occurs in up to 8% of the females of reproductive age, being one of the factors that can lead to insulin resistance, type 2 diabetes mellitus, obesity and infertility. In these processes, a proinflammatory status can interfere with insulin signaling, stimulates the hyperplasia of androgen producing theca cells and promotes hyperandrogenism. Based on these data, the aim of this study is to evaluate the effect of Spironolactone on oxidative stress and inflammation in the periovarian adipose tissue (POAT) of oestradiol valerat (OV) induced PCOS.

Material and methods. 30 female Wistar rats were distributed in PCOS group (n=20; one i.m. injection of 5 mg OV/0.5 ml sesame oil) and non-PCOS group (control; n=10, 0.5 ml sesame oil). After a month, ultrasound was performed to confirm the PCOS and an oral glucose tolerance test (OGTT) was performed. Afterwards, the PCOS group was divided in a treated PCOS group with vehicle (0.5 ml sesame oil) and PCOS group treated with spironolactone (2 mg/0.2 ml sesame oil). After 30 days, OGTT was assessed and the periovarian adipose tissue (POAT) was collected for oxidative stress, DNA damage and inflammatory status evaluation.

Results. Malondialdehyde (MDA) levels, expression of phosphorylated nuclear transcription (pNF)-kB and γ-H2AX increased in the POAT of PCOS group in parallel with reduced superoxide dismutase (SOD) activity and a higher fasting glycemia. Spironolactone treatment decreased MDA levels and increased glutathione peroxidase (GPx) activity in the POAT compared to the vehicle ($p<0.05$) suggesting its antioxidant effect. In the POAT, the expression of COX-2 and γ-H2AX diminished after Spironolactone administration ($p<0.05$) while SOD activity and monocyte chemoattractant protein (MCP)-1 were unchanged ($p>0.05$).

Conclusion. Our results showed Spironolactone treatment improved antioxidant capacity and had a beneficial effect on inflammation and DNA lesions in POAT of PCOS rats.

Keywords: polycystic ovary, Spironolactone, inflammation, oxidative stress

DECREASED SPECIFIC ACTIVITY OF SUPEROXIDE DISMUTASE SHOWS NO EFFECT AGAINST SPECIFIC ACTIVITY OF CATALASE AND GLUTATHIONE PEROXIDASE IN PREECLAMPTIC PLACENTAL TISSUE

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COORDINATOR: PRIJANTI ANI RETNO

Introduction. Preeclampsia is defined as the new onset of hypertension and proteinuria after 20 weeks of gestation. It happens due to incomplete pseudovasculogenesis, thus causing intraplacental hypoxia which leads to oxidative stress. Previous studies have shown that decreased antioxidant levels in preeclampsia contribute to the disturbance of placental development in preeclampsia. Therefore, this research is conducted to compare the specific activity of Superoxide dismutase (SOD), catalase, and glutathione peroxidase (GPX) in early-onset and late-onset preeclampsia to find out the difference to normal placenta.

Material and methods. This research was an observational study using a cross- sectional method which compares the specific activity of antioxidant enzymes, such as SOD, GPX, and catalase, in the placenta of women with normal pregnancy, early- onset and late-onset preeclampsia, admitted in Budi Kemuliaan Hospital and Cipto Mangunkusumo Hospital which is located in Jakarta, Indonesia in 2015. As a preliminary study, the minimal sample size used for each group is 10 samples and additional 2 samples for dropout. Thus, 12 samples were used for each group, except in early-onset preeclampsia because only 4 samples were found. The specific activity for the enzymes were measured using spectrophotometric assay.

Results. Statistical analysis using one-way ANOVA revealed that there were no significant differences in protein between the three groups ($p=0.535$), while analysis using Kruskal-Wallis revealed that there was a decrease in SOD ($p=0.001$), catalase ($p=0.648$), and GPX ($p=0.399$). However, only the result of SOD is significant. This elucidates the decrement of other enzymes resulted from the decreased SOD level itself, with consideration of possible productions of hydrogen peroxide other than from SOD.

Conclusion. The specific activity of SOD between normal and preeclamptic placentas showed a significant decrease while the other enzymes (Catalase and GPX) demonstrated an insignificant result. Thus, it can be concluded that preeclampsia may be caused by either a defect in SOD or an absence of ROS.

Keywords: preeclampsia, SOD, catalase, GPX

TERT GENE POLYMORPHISMS AND DNA REPAIR MECHANISM IN LUNG CANCER. A CASE CONTROL STUDY IN A ROMANIAN POPULATION

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CO-AUTHORS: CATANA ANDREEA, TRIFA ADRIAN, POPP RADU
COORDINATOR: BLAGA OANA

Introduction. Lung cancer remains the most common cause of cancer- related mortality with nearly 1.6 million deaths worldwide in 2014. Telomerase plays a crucial role in cancer cell immortality and DNA repair mechanisms have a major role in genome stability. Therefore, gene variants in these genes may represent a risk factor in lung carcinogenesis. The purpose of our study was to investigate the possible association between TERT, DNA repair polymorphisms and the risk of lung cancer, in a Romanian population.

Material and methods. For this, a group of 112 patients with lung cancer were recruited and genotyped using Real Time PCR for rs2736100 of TERT gene, Arg156Arg of XPD (ERCC2), Arg194Trp of XRCC1 gene and Arg399Gln of XRCC3 gene.

Results. Statistical analysis revealed that rs2736100 of TERT gene is associated with Arg194Trp of XRCC1 gene and Arg399Gln of XRCC3 gene, especially in women diagnosed with lung adenocarcinoma (p=0.042).

Conclusion. In conclusion, the results of the study suggest that polymorphisms Arg194Trp of XRCC1 gene and Arg399Gln of XRCC3 gene, could be associated with TERT mutagenesis and therefore they could represent future biological markers for the development and targeted treatment of lung cancer.

Keywords: lung cancer, TERT gene, DNA repair polymorphisms, Romanian population

IMMUNOHISTOCHEMICAL CONCENTRATION OF HUMAN CHORIONIC GONADOTROPIN IN THE PLACENTA`S TROPHOBLAST CELL OF THE PREGNANT WITH THE EARLY MATURATION OF PLACENTAL VILLOUS TREE CONSIDERING THE IRON-DEFICIENCY ANEMIA DURING GESTATION

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Introduction. Iron deficiency is the most common cause of anemia in pregnancy. It is characterized by a high frequency, which in regions of Ukraine take place from 28.4% to 83.1%. It should be noted that the concentration of placental hormones in trophoblast's villous in cases of early maturing of placental villous tree of placenta during gestation has not been studied yet, particularly in the period of gestation of 29-32 and 33-36 weeks.

Material and methods. Total examined 100 placentas. Design of research: Group №1-combination of IDA of the pregnant and early maturation of the placental villous tree at 29-32 week of gestation, n=18. Group №2-early maturation of placental villous tree without any anemia at 29-32 week of gestation, n=19. Group №3-combination of IDA of the pregnant and early maturation of placental villous tree at 33-36 week of gestation, n=20. Group №4-early maturation of placental villous tree without any anemia at 33-36 week of gestation, n=22. Group №5-physiological pregnancy, between 37-40 weeks of gestation. Immunohistochemical technique was performed on paraffin sections. Primary antibodies against HCG with visualization system of polymer primary antibodies (DAKO) were used. Diaminobenzidine was dyed; statistically significant differences are considered in the $r \leq 0.05$.

Results. It is known that the peak of concentration of HCG falls on the 10-11 week of pregnancy, then, every second day concentrations slowly decline. It was expected that the concentration HCG should be lower in all groups of the study. Established immunohistochemical concentration for physiological pregnancy is 0.214±0.0023 D; group №1-0.226±0.0020 D; group №2-0.249±0.0023 D; group №3-0.218±0.0019 D; group №4-0.232±0.0024 D.

Conclusion. Immunohistochemical concentration of HCG in the placenta`s trophoblast cell of the pregnant with early maturation of placental villous tree for both periods of gestation is higher than we could predict, although in the case of IDA of the pregnant woman, it is lower than without anemia.

Keywords: immunohistochemical concentration, early maturation of placental villous tree, IDA, HCG

A STUDY OF THE TNF308G POLYMORPHISM IN ROMANIAN TYPE 2 DIABETIC PATIENTS

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CO-AUTHORS: CATANA ANDREEA, POPP RADU
COORDINATOR: BLAGA OANA

Introduction. TNF is a gene encoding a multifactorial inflammatory cytokine linked to an array of biological phenomena, including cell proliferation, autoimmunity and insulin resistance. There is significant overlap between processes affected by this cytokine and the pathogenesis and manifestations of type 2 diabetes: coexistence with obesity as a comorbidity, alterations in regulation and effect of insulin, systemic inflammation. As such, our aim was to show whether alterations in the TNF-308G polymorphism bear some significance in patients diagnosed with type 2 diabetes.

Material and methods. The design of this study was based on a case-control model, including 103 patients diagnosed with type 2 diabetes in various stages of the condition, as well as 123 healthy controls. A PCR-RFLP protocol was used for sample genotyping. The statistical analysis was carried out using SPSS 2016 Software.

Results. The heterozygous genotype (GA) was associated with an increased prevalence of type 2 diabetes (OR=1.669 (1.046 - 95% CI) p=0.032).T he homozygous genotype association did not meet statistical significance (OR=1.02 (0.271 - 95% CI) p=0.969. As for gender, age and glycated hemoglobin as sociated genotype and allele distribution there were no statistically significant differences. (p=0.078, p=0.53, p=0.24).

Conclusion. A heterozygous genotype for TNF308G appears to be associated with the development of type 2 diabetes. A larger scale experiment would clarify the status of homozygous patients, as well as any influence of TNF308G on the progression of the disease or control of glucose levels.

Keywords: TNF, diabetes, polymorphism

COMPARISON BETWEEN THE EFFECTS OF DIFFERENT DOSES OF VITAMIN C ON THERMONOCICEPTION

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COORDINATOR: LUCA ANDREI

Introduction. Vitamin C is an essential micronutrient that serves as a cofactor in a number of enzymatic and chemical pathways. It acts as an antioxidant by inhibiting the formation of reactive oxygen species (ROS) which are reported to be associated with neuropathic pain. The purpose of our study was to evaluate whether Vitamin C acts as an analgesic and to compare the antinociceptive effects of different doses in mice.

Material and methods. 32 BALB/c mice were divided into four groups. The mice in the first three groups received one dose of 50, 500 and 1500 mg/kg b.w. respectively of Vitamin C via intraperitoneal administration. The last group served as control group and received an equal volume of distilled water in the same manner. To evaluate the analgesic effect, Tail flick and Hot plate tests were performed before and after 15, 30, 60, 120, 180 respectively 240 minutes after administration. The results were compared using the Student's t-test.

Results. A single dose of 50 mg/kg b.w. of Vitamin C increased the response to thermal stimuli, reaching a maximum effect one hour post administration, however, without statistical significance. The maximum nociceptive effect of the 500 mg/kg b.w. dose was noted one hour post-administration, after this period the effect seemed to diminish gradually. In the Tail flick test, the 1500 mg/kg b.w. dose showed no statistical significance over four hours after administration: by comparison, in the Hot plate test it led to an increase in the response maximizing two hours post- administration.

Conclusion. Vitamin C demonstrated an analgesic effect compared with the control group ($p=0.05$), probably through its antioxidant capacities. Our data opens a new field of study regarding the use of ascorbic acid in acute pain and its side effects.

Keywords: vitamin C, analgetic, thermonociception

THE EFFECTS OF SLEEP DEPRIVATION ON CARDIOVASCULAR PARAMETERS

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Introduction. It is known that the total duration of sleep in healthy adults has an average between 7 and 8 hours per night. Sleep deprivation is becoming a problem that affects a big part of the population, and involves all social categories. Among these, one of the most affected categories by this problem is represented by physicians and medical students, especially in East European countries. The purpose of our study is to analyze the effect of sleep deprivation on cardiovascular functions on residents and medical students after continuous 24h on-call duty.

Material and methods. In our study, we have residents, and students- aged between 22-33 years old, 12 men and 14 women. We evaluated their cardiovascular function using electrocardiography and arterial blood pressure measurement using the manometric method, before and after one night of call duty. Each of the subjects remained awake the entire night and consumed either coffee or caffeinated drinks such as coca-cola during this period. As consequence, a caffeine unit was described.

Results. Surprisingly all subjects had a decrease in their heart rate after one night of sleep deprivation - Mean: 79.77 b/min before to 71.62 b/min after ($p = 0.000$), also the medium arterial blood pressure was lower after the overnight call (from mean- 93.8438 mmHg before to 86.3504 mmHg after). Moreover, we documented on EKG, an early repolarisation syndrome in 69.2% of cases.

Conclusion. Acute sleep loss for 24 hours, due to continuously, intense on-call work, modifies several cardiovascular parameters; heart rate, medium arterial blood pressure and heart repolarization, which is associated in literature with a risk of life- threatening arrhythmias.

Keywords: sleep deprivation, heart rate, on-call duty, cardiovascular

QUALITY CONTROL IN THE PATHOLOGY LABORATORY

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Introduction. Quality control is defined as a complete set of applied procedures, which are designed to prevent, detect and correct errors occurring at different stages. These results must be constantly monitored, in order to be taken in consideration for the establishment of a correct diagnosis.

Material and methods. The type of the study is a retrospective and prospective one, conducted in the laboratory of pathology II service within Mures County Hospital. I examined 1,000 slides derived from 300 cases. 200 of them were cytology and 800 HE stains from which 150 special stains as PAS and Van Gieson and 100 immunohistochemistry cases with approximate 300 reactions to different antibodies.

Results. In the fixation stage possible errors are inadequate containers, inadequate volume of fixative (formol) in relation to the size of the sample and too little or too much fixation time. At sampling we had to give importance to the marking with wire the surgery parts and marking with ink the surgical resection edges. At the Inclusion in paraffin, the pieces that were too big or too thick do not fit in the inclusion tapes/boxes, and the pieces that were too small such as cutaneous punch biopsy, must be included in such way that we can find the epidermal, dermal and hypodermal layers. Sectioning depends on the microtome and the lamella, the block's quality and the included parts or individual variability of the technician. Staining must respect the laboratory protocols, the staining times, the quality of the stains and the quality of the laboratory equipment.

Conclusion. The sources of error can be identified at any stage of performing permanent histological preparation. For quality assurance and standardization for histological tissue processing, these sources of errors must be avoided and the appointment of a person who can ensure the quality in the pathology laboratory is recommended.

Keywords: quality, control, pathology

ATG5 (C.574-12777G>C) POLYMORPHISM IMPLICATION IN TUBERCULOSIS

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Introduction. Pulmonary Tuberculosis (TB) is an infecto-contagious disease caused by Mycobacterium tuberculosis. According to the World Health Organization, TB is the second cause of death worldwide. Autophagy is a homeostatic process involved in nutrient regeneration and immune responses, which may be involved in intracellular killing of M. tuberculosis. Several studies have linked variation in autophagy genes with susceptibility to pulmonary tuberculosis.

Material and methods. In this study, 256 patients with active or history of Pulmonary Tuberculosis were included and 332 patients without active or history of TB for the control cohort were enrolled. We genotyped single nucleotide polymorphism (SNP) in the ATG5 (c.574-12777G>C) gene using Real-Time PCR on a VIIA™ 7 Real Time PCR System. This SNP was reported as relevant for the autophagy process and potentially for susceptibility to active pulmonary tuberculosis. DNA was isolated and purified from whole blood collected on EDTA.

Results. For the ATG5 (c.574-12777G>C) SNP our findings evidenced the following distribution: CC genotype was found in 123 (47.86%) subjects with TB while the same genotype was found in 152 (45.78%) subjects from the Control Group; CG genotype was found in 100(38.91%) subjects from the TB Group and 137 (41.27%) subjects from the Control Group; GG genotype was found in 34 (13.23%) subjects from the TB Group and 43 (12.95%) subjects from the Control Group. The minor Allele G had a frequency of 32.68% in the TB Group and 33.58% in the Control Group.

Conclusion. In this study, no association was found between the increased risk of developing pulmonary tuberculosis and the presence of the ATG5 (c.574- 12777G>C) polymorphism. This suggests that this genetic variant we focused on is not related to the risk for developing active TB in Romanian population. A possible explanation of the lack of association could be the presence of different ethnic groups in the two cohorts.

Keywords: SNP, tuberculosis, genotyping, autophagy

ANATOMICAL COMPARISON OF TWO SURGICAL APPROACHES AT THE SHOULDER

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Introduction. Fractures of the distal end of the humerus which interest the surgical neck of the humerus occur in 4.5-8.5% cases of skeleton bone fractures. Alongside bone injuries there are often found vascular, nerve and muscle lesions. Because surgical approaches are based on anatomical structures through which they pass, in this paper we intend to study anatomical plane features and muscle, vascular and nerves interposed between the knife and the bone plane in the orthopedic shoulder in two manners of approaches.

Material and methods. The study was conducted on ten bodies belonging to the 1st Department of Morphological Sciences, Department of Human Anatomy at the University of Medicine and Pharmacy Craiova. The method of preservation used for the embalming was a solution of alcohol and glycerol, followed by cooling in a special refrigerator for the preservation of corpses for 12 months. The methods of the study consisted of anatomical dissection after cues from orthopedic surgery literature.

Results. The transverse axillary pre and retro vascular approach is very interesting, but the only advantage that it holds is that it hides the surgery scar. From an anatomical point of view, it represents a complicated way that does not give much room to manipulate the bone fragments. Previously addressed as the deltopectoral „Bazy" type is a classic shoulder approach that offers many advantages for the medical practitioner. Although we meet many vascular and nervous items during the dissection, the upper end of the humerus is easy to handle. Especially in need it can prolong the incision releasing the anterior bundles of the deltoid muscle.

Conclusion. The anterior deltopectoral approach is superior in comparison to the axillary approach in fractures of the surgical neck at the humerus, because it allows the implantation of bone fragments and osteosynthesis material.

Keywords: anatomy, axillary approach, deltopectoral approach, muscles

SURFACE ENHANCED RAMAN SCATTERING-BASED DETECTION OF MICROALBUMINURIA

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Introduction. Microalbuminuria, which is defined as the excretion of 30 – 300 mg of albumin per 24 hours, represents an independent risk factor for chronic renal failure and for cardiovascular morbidity and mortality. However, point of care tests used for screening in diabetic and hypertensive patients do not meet recommended sensitivity criteria for accurate identification of microalbuminuria. Therefore, the present study proposes a surface enhanced Raman spectroscopy (SERS)-based method for detecting trace amounts of urine albumin and proteins using iodine modified silver nanoparticles.

Material and methods. Iodine modified silver nanoparticles synthetized using the hydroxylamine reduction method were mixed with human urine aliquots that contained bovine serum albumin in the 30-300 mg/l range. SERS spectra were collected with a He-Ne laser emitting at 633 nm, which delivered approximately 10 mW of power at the sample. For data acquisition, the laser was focused on the sample via a 10X microscope objective (N.A. 0.25) with an exposure time of 30 s. All data processing and analysis was performed using the MATLAB software environment.

Results. SERS spectra of urine samples presented two Raman bands at 860 cm-1 and 1003 cm-1, that were tentatively attributed to the tyrosine and phenylalanine breathing modes, respectively. The intensity of the Raman bands was proportional to the concentration of the albumin and the detection limit was approximately 30 mg/l. As opposed to enzymatic methods or immunoassays, the SERS-based detection method is insensitive to chemical modifications and could be used with other types of urine proteins as well, including degraded albumin or Bence-Jones proteins.

Conclusion. The SERS based method can detect trace amounts of urine albumin using the Raman bands around 860 cm-1 and 1003 cm-1. Therefore, SERS is a promising method for detecting proteins in urine samples, which could be implemented in a future point of care instrumentation.

Keywords: surface enhanced Raman scattering, microalbuminuria, silver nanoparticles

NEW PSYCHOACTIVE SUBSTANCES. A CHALLENGE FOR THE FORENSIC TOXICOLOGY

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Introduction. New psychoactive substances (NPS) are drugs of abuse, in either a pure form or a preparation, that are not controlled by international drug conventions. The forensic community faces a challenge in gaining access to methods for the analysis of NPS because manufacturers produce new chemical variants to escape the legal frameworks. Chemically, novel psychoactive substances are classified as phenethylamines, amphetamines, synthetic cathinones, piperazines, pipradrols/piperidines, aminoindanes benzofurans, and tryptamines. The aim of this study was to identify the main challenges to the forensic toxicology raised by the emergence of the NPS and to underline the importance of developing of a science-based policy driven approach on NPS.

Material and methods. Currently, despite the popularity of NPS, there is a paucity of scientific data about the analytical techniques for chemical structure elucidation. Here we provide a brief review describing analyses from less selective color tests, to more selective approaches such as gas chromatography/mass spectrometry (GC/MS), liquid chromatography/mass spectrometry (LC/MS), Fourier transform infrared spectroscopy (FTIR) and nuclear magnetic resonance (NMR).

Results. Many of the drugs described did not display a peak related to its precursor ion when analyzed by GC/MS. Moreover, the gas chromatograms and mass spectra of cathinone were particularly poor. LC served a central role in the identification of NPSs. In all cases, LC/HRMS correctly identified the elemental compositions of the unknown molecules.

Conclusion. For an effective strategy against the appearance of a number of new drugs on the illicit market, cooperation among laboratories operating in this field, academia (with its more sophisticated analytical instruments and methodologies) and EWS (Early Warning System) for the sharing of knowledge on new drugs was shown to be advisable.

Keywords: psychoactive, drugs, forensic, toxicology

RAMAN IMAGING FOR THE DETECTION OF INTRACELLULAR CAROTENOIDS

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Introduction. Age related macular degeneration (AMD) is the leading cause of blindness in the aging population. The only therapy in the case of non-angiogenic AMD is represented by supplementation with antioxidants, which can slow the progression of the disease in some patients. Norbixin is a water-soluble retinoid that was recently shown to protect the retinal pigment epithelium cells (RPECs) in a murine model, but further studies are needed. Raman imaging is an excellent tool for assessing the uptake and intracellular distribution of carotenoids, due to the presence of conjugated double systems that enable resonance condition with the exciting radiation. Therefore, the present work used Raman imaging to compare the uptake and accumulation of Norbixin and beta-carotene inside RPECs.

Material and methods. The RPECs (D407 cell line) were incubated with either beta-carotene or Norbixin for 24 h, at a final concentration of 100 and 200 μM and then fixed with 4% paraformaldehyde. The Raman signal was collected with a 532 nm diode laser using an exposure time of 1 s for each spectrum in 2 μm steps. Pre-processing and principal component analysis (PCA) was performed using custom built MATLAB functions.

Results. By employing Raman imaging and PCA, a clear pattern of intracellular uptake was observed in the case of Norbixin, as opposed to beta-carotene, which could not be detected inside RPECs. This feature suggests that intravitreal injection should be taken into consideration in future therapies based on Norbixin. The identification of the carrotenoids was based on two characteristic Raman bands around 1005 cm-1 and 1523 cm-1.

Conclusion. Using Raman imaging, the study showed that Norbixin accumulates inside RPECs without the need for solubilisation. This feature suggests that intravitreal injection is a viable route of administration for Norbixin, which could improve the treatment outcome in non-neovascular AMD.

Keywords: age-related macular degeneration, carotenoids, Raman imaging

NAT2 ACETYLATOR STATUS ON A SAMPLE OF TUBERCULOSIS PATIENTS IN SOUTH-WESTERN ROMANIA

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Introduction. As the leading cause of death worldwide, tuberculosis (TB) registers a high incidence in Romania, most prominently in Oltenia. Standard regimens to treat TB consist of a combination of drugs over a prolonged period. Arylamine-N- acetyltransferase-2(NAT2) is involved in the metabolism of isoniazid (INH), major first line anti-tuberculosis drug. Polymorphisms (SNPs) in the NAT2 gene are ethnicity based and clinically relevant through modulation of N-acetylation status. Acetylator phenotypes - rapid, intermediate, and slow - impact treatment outcome and side-effects.

Material and methods. Our small-scale study was conducted on 175 pulmonary TB patients enrolled during 2011-2013 in Spitalul de Pneumoftiziologie ”Tudor Vladimirescu”, Gorj. TB diagnosis was assessed according to national guidelines. We genotyped three of the slow acetylator SNPs: rs1801280 (G>A,I114T) - main SNP of NAT2*5 haplotype, rs1799930 (T>C,R197Q) - NAT2*6, rs1799931 (G>A,G286E) - NAT2*7, using TaqMan probes (ThermoFisher) on a Real- Time PCR Viia7 platform (Applied Biosystems). The selected SNPs drive a slow acetylator phenotype and are frequent in Caucasians.

Results. Genotyped data shows minor allele frequencies of 37.14% for rs1801280, 34.29% for rs1799930 and 9.14% for rs1799931, comparable or higher to reported frequencies for Caucasians. Homozygosity translates into slow acetylator phenotype: 13.71% for rs1801280, 10.29% of the TB cases for rs1799930 and 8.57% for rs1799931, adding up to 32.57% of the sample group.

Conclusion. Haplotype diversity, polymorphic genetic background and functional variation would dictate acetylator status to be determined using an extensive panel of SNPs. However, similar selections of main SNPs have been used, with acceptable misclassification rates. Fast INH acetylation phenotype is at risk of not reaching drug efficacy due to low drug levels. Slow acetylation results in prolonged exposure, therefore higher drug-induced liver toxicity (DILI). Though underpowered, our findings support the potential and the need of individualized pharmacogenetic- guided INH regimen in TB patients with the aim of improved treatment outcome and decreased DILI incidence.

Keywords: tuberculosis (TB), arylamine-N-acetyltransferase-2 (NAT2), acetylator status, drug-induced-liver-injury (DILI)

TELOMERE LENGTH CHANGES IN ALZHEIMER DISEASE

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Introduction. Telomeres are regions of repetitive DNA at the end of eukaryotic chromosomes, which prevent chromosomal instability. Telomere shortening in peripheral blood mononuclear cells (PBMCs) has been associated with biological age and several chronic degenerative diseases. Telomere shortening is linked to age- related disease including Alzheimer's disease (AD) and has been reported to be reduced in leukocytes of AD patients. The aim of the present study was to measure telomere length in lymphocytes of patients with AD compared to healthy subjects.

Material and methods. We used peripheral blood mononuclear cells (PBMCs) harvested from Alzheimer disease (AD) patients (n=30) and control patients (n=30). The age of patients with Alzheimer disease ranged from 57 to 84- years old, while the control samples were harvested from elderly subjects with a similar age range, with no prior diagnosis of Alzheimer disease or other forms of dementia. For determination of telomere length of both study and control patients groups, we used Telomere PNA Kit/FITC which is a new flow cytometric method of hybridization, which provided data referring to relative telomere length compared to control cells. Instead of 1301 cell line (tetraploid), we used K562 as control cell line (triploid) and we adjusted the DNA index accordingly (DNA index = 1.5).

Results. Our data show significant shorter telomere length in AD patients (22.95%) compared to controls (55.49%).

Conclusion. The telomere length is age-dependent in lymphocytes and decreased in AD patients, which could mean that the AD pathology may contribute to telomere length shortening. The high variability of telomere lengths in individuals suggests that it will not be useful as a general biomarker for AD. However, it could become a biomarker in the personalized long-term monitoring of an individuals' health.

Keywords: Alzheimer disease, telomere length, flowcytometric hybridization, lymphocytes

THE ANALYSIS OF SOMATIC MUTATIONS WITH PROGNOSTIC VALUE IN CHRONIC MYELOPROLIFERATIVE NEOPLASMS

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Introduction. Philadelphia-chromosome – in chronic myeloproliferative neoplasms (MPNs) including polycythemia vera (PV), essential thrombocytosis (ET), and primary myelofibrosis (PMF) are clonal hematopoietic stem cell disorders characterized by increased proliferation of terminally differentiated myeloid cells. Somatic mutations in the 3 driver genes, Janus-kinase-2 (JAK2), calreticulin (CALR), and myeloproliferative-leukemia-virus (MPL), are involved in the pathogenesis of these rare cancers. Major causes of morbidity and mortality in MPNs are represented by arterial and venous complications. The aim of this study was to evaluate the frequency of somatic mutations in patients with MPNs as well as to assess the thrombotic phenomena.

Material and methods. This study was conducted on 57 patients with chronic MPNs found in the evidence of the Hematology Department of the Emergency Clinical County Hospital of Targu Mures. The following variables were extracted from the patients' medical files: the status of JAK2, CALR or MPL mutations, age at the time of diagnosis and the manifestation of a major thrombotic incident (MTI).

Results. The median age was 59 years, 15.78% were young adults under 40 years-of-age, 35 were female and 22 men. The most frequent disorder was ET (45.61%), followed by PV (43.85%) and PMF (10.52%). JAK2 mutation was present in 80% of PV patients, whereas the other 20% carried no somatic mutation. From ET patients, 53.84% were JAK2-positive and 23.07% CALR-positive. Half of PMF patients had JAK2 mutation and the other half had the CALR one. There was no case of MPL mutation. Interestingly, women were 1.69 times more likely to carry the JAK2 mutation compared to men. At least one MTI happened to 40.35% of the patients (42.85% of the females and 36.36% of the males). Of all MTIs, 70.83% were arterial (acute myocardial infarction-47.05%, ischemic cerebrovascular accidents- 29.41%).

Conclusion. JAK2 was the most frequent genetic mutation in MPN patients and CALR mutation was associated only with ET and PMF. There was a high incidence of MTI, a life-threatening condition for patients with MPNs.

Keywords: myeloproliferative neoplasms, JAK2, CALR, thrombotic incidents

ANALYSIS OF RS9939609 FTO GENE POLYMORPHISM AND ITS CORRELATION TO OBESITY AND HYPERTENSION IN A ROMANIAN ADULT GROUP

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Introduction. Obesity is the result of an unbalance between intake and expenditure being differently influenced by genetic and environmental factors. The FTO gene variant rs9939609 (indicator of fat mass accumulation), has been the first described in correlation with the common polygenic form of obesity in adults.

Material and methods. Our research goal was to estimate the role of the FTO gene variant in obesity characteristics (biochemical and physical parameters, cofactors and comorbidities) within the selected Romanian 30 individuals divided in 2 adults groups by their in Body Mass Index (BMIs): obese (20) and normal weight (10) .The main including criteria was BMI, and the auxiliary including criteria were weight and abdominal circumference. The patients were genotyped for the rs9939609 polymorphism with the HRM-QP method. The genotypes were compared with the physical and clinical indicators of obesity (BMI, weight, abdominal circumference, age, sex, height, body fat percentage, basal metabolic rate, daily caloric needs) and also with hypertension for statistical correlations. The statistical analysis was realized with the program SPSS v 13.0 and Microsoft Excel.

Results. The study showed that FTO gene variant was present in 81.8%of the individuals from both groups and in 95.7% of the individuals from the obese group. Results showed that the polymorphism is an important obesity risk factor, being statistically correlated both with obesity parameters (BMI, abdominal circumference, weight, body fat percentage) and with hypertension, especially with the increase of the systolic blood pressure. The statistical correlations were stronger in the homozygote genotype.

Conclusion. This study is a first step towards the development of a new field of personalized therapeutic approach towards obesity. The possibility of detecting early in life the presence of the FTO polymorphism might help us prevent the development of obesity itself by encouraging individuals to have a healthy lifestyle.

Keywords: FTO, polymorphism, rs9939609, obesity

EPITHELIAL MARKERS EXPRESSED BY HUMAN MESENCHYMAL STEM CELLS UPON IN VITRO INDUCTION

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Introduction. Although the property of adult stem cells to regenerate and repair damaged tissues may be controversial, bone marrow derived cells are reported to have potential contribution to tissue repair in both physiological and pathological conditions, including various types of epithelia. In this study we verified the effect of chemical inductors to differentiate in vitro bone marrow-derived adult mesenchymal stem cells (MSCs) into epithelial-like cells.

Material and methods. After isolation and expansion, induction of MSCs towards epithelial lineage was made using various cytokines and growth factors (epidermal growth factor - EGF, hepatocyte growth factors - HGF, fibroblast growth factor - FGF), added in culture alone or in combination. Differentiated cells were analyzed using immunofluorescence for vimentin, cytokeratin and E-cadherin markers, whereas gene expression level of cytokeratin 19 and E-cadherin was determined using RT-PCR.

Results. In all differentiated MSCs, some modifications of cell morphology were noticed, as they became more polygonal and had a tendency to form multilayered culture. Expression of vimentin was weaker in epithelial-like cells, compared with MSCs, while expression of cytokeratin was stronger in epithelial-differentiated cells. The results of RT-PCR showed an increased expression of cytokeratin 19 and E- cadherin in epithelial cells, especially in cells cultured in media without FGF, suggesting a possible role FGF in inhibition of mesenchymal to epithelial transition.

Conclusion. The experiments showed that MSCs differentiation toward the cells expressing epithelial markers is relatively easy to obtain, using a certain combination of inductors, without genetic manipulation of the cells.

Keywords: mesenchymal stem cells, epithelial-like cells, differentiation media

LABORATORY MICE NEOPHOBIA AND SENSORIAL REFLEXES EVALUATION

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Introduction. Several studies reported the impact of domestication in mice behavioral evaluation. Moreover, the natural variability contributes with an additional effect. Even if it is not officially written, the evaluation of mice before starting an experiment is necessary from our point of view. We started this study in order to evaluate the mice responses and their natural variability regarding neophobia and sensorial reflexes tests, and also the quality of these tests.

Material and methods. Thirty laboratory mice were included in this observational study. In order to evaluate the neophobia, we put every mouse in a new box for thirty seconds. The number of vertical, horizontal and to corners moves were evaluated. Sensorial reflexes and posterior legs extension reflex were measured by holding the animal by its tail and slowly lowering it towards a black surface. The Grubb's test was used in order to find the outliers. This study was approved by the Ethical Committee from the University of Medicine and Pharmacy from Tîrgu Mureş, Romania.

Results. For the neophobia test the mean number of vertical and horizontal moves were 11 with a standard deviation (SD) of 4, respectively 4 (SD=3) to box corners. Ten (33.3%) of the mice presented physiological needs. Two (6.66%) significant outliers ($p<0.05$) were found. A number of 9 mice (30%) failed to respond to sensorial reflexes test, the posterior legs extension reflex was also absent. The remaining 70% presented a normal response from a mean distance of 5 centimeters (SD=3.53) and no outliers were detected.

Conclusion. According to our results, the described neophobia test is an accurate test with a low percentage of outliers. The described sensorial reflexes and posterior leg extension test did not have outliers, but its disadvantage is the big percentage of failed responses.

Keywords: neophobia test, sensorial reflexes tests, natural variability, mice

ACCURACY OF OPEN FIELD AND DARK-LIGHT TESTS ASSESSMENT ON MICE

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Introduction. Open field test (OFT) and dark-light test (DLT) are used to assay general locomotor activity levels and mice anxiety. These tests are most used for evaluating the anxiolytic effect of various drugs. The aim of our study was to evaluate the accuracy of these tests and the natural variability of mice tested.

Material and methods. Thirty mice were included in this study. Accord was obtained from the Ethical Committee of the University of Medicine and Pharmacy in Tîrgu Mureş, Romania. For the OFT assay, mice were placed in the center of the apparatus and observed for 5 min. Patterns of horizontal (distance covered and thigmotaxis) and vertical movement (rearings) were analyzed throughout the test. Initial freezing, self-grooming behaviour, the number of urine spots and defecation were also recorded. For DLT, anxiety-like behavior was measured in a dark-light box. The apparatus consisted of two compartments connected by an opening. The mice were introduced into the dark compartment and observed for 5 minutes. The latency to enter the enlightened compartment, the time spent in it and the number of rearings were recorded.

Results. The mean freezing time was 1.57 seconds (SD=1.97), no significant outliers detected. The mean distance on OFT was 1105.33 cm (SD=541.32), with two significant ($p<0.5$) outliers detected. The mean number of squares crossed was 108.8 (SD=53.07). Two significant ($p<0.5$) outliers were detected. No outliers presented urine spots and defecation. The mean latency time of DLT was 62.77 seconds (SD=71.51), two significant ($p<0.5$) outliers were detected. The mean time spent in the enlighened compartment was 155.37 seconds (SD=77.85) and the mean number of rearings was 3.67 (SD=2.44), with no significant outliers were detected.

Conclusion. According to this data, for accurate results it is necessary to exclude a number of 6 mice (20%) for both tests as a consequence of their natural variability.

Keywords: mice, open-field test, dark-light test, variability

ASSOCIATION STUDY OF ASAP1 POLYMORPHISM AND PULMONARY TUBERCULOSIS

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Introduction. Tuberculosis represents a major world health problem, with an incidence of its active form estimated to 8.7 million new cases and a mortality rate of 1.4 million deaths. One of the suspected mechanism which can lead to an increased susceptibility to Mycobacterium Tuberculosis infection is the way dendritic cells migrate to lymphatic nodes in order to activate the immune system (2). Within this pathway we looked at rs4733781 SNP in the ASAP1 gene, a single nucleotide polymorphism which has been found to downregulate dendritic cell migration (4) as a genetic susceptibility variant for pulmonary tuberculosis.

Material and methods. We performed a case-control study and by means of molecular genetics techniques, respectively Real-Time PCR TaqMan Assays we analyzed the genotype and allelic distribution of rs4733781 (A/C) in a cohort of 120 of patients with pulmonary tuberculosis and a control group consisting of 125 healthy volunteers. Statistical analysis was performed using Fisher's exact test using both an autosomal dominant and recessive model of analysis.

Results. For the autosomal dominant model of analysis we obtained a p value of 0.700 with an odds ratio of 1.132 CI 95% (0.69 to 1.864), while for the autosomal recessive model of analysis we obtained a p value of 0.999 with an odds ratio 1.051 CI 95% (0.558 to 1.976).

Conclusion. In our present preliminary study we found no statistically significant difference between the genotype distribution of the ASAP1 rs4733781 in our two study groups; hence, this polymorphism is not a genetic susceptibility variant for pulmonary tuberculosis in the Romanian population.

Keywords: tuberculosis, dendritic cells, migration, polymorphism

ANTIBIOTIC SENSITIVITY SPECTRUM OF METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS INVOLVED IN RESPIRATORY TRACT INFECTIONS

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Introduction. Staphylococcus Aureus is one of the leading causes of respiratory tract diseases and is notorious for its ability to become resistant to antibiotics, a phenomenon that is becoming more and more frequent.

Material and methods. For the purpose of this study, we gathered 793 specimens from the upper respiratory tract: tracheobronchial secretion, sputum, nasal secretion, nasopharyngeal secretion, tonsil secretion, conjunctival secretion, auricular secretion, sinus puncture aspirate, all gathered from patients committed to the Emergency Clinical Hospital Craiova, during the period between 01.01.2015 - 01.01.2016. Microbiological diagnosis was done using both classical and automated methods (Automated bacterial identification system, as well as the Phoenix antibiogram - BD). We have subjected every identified and isolated bacterial strain to the Kirby- Bauer test (disk diffusion antibiotic sensitivity test), so as to determine the sensitivity/resistance to antibiotics of said strains.

Results. Of the 793 specimens gathered, only 100 contained MRSA (Methicillin resistant Staphylococcus Aureus), 51 of which only contained Staphylococcus Aureus, and 49 of which contained, apart from MRSA, other germs as well. - Sensitivity: all of the 100 identified and tested MRSA strains were found to be sensitive to Linezolid, 97 to Teicoplanin, 96 to Tigeciclin, 93 to Ceftaroline, 77 to Cloramphenicol, 66 to Rifampicicn; - Resistance: 62 strains were resistant to Clarythromicin, 75 to Ciprofloxacin, 86 to Tetracycline, 82 to Penicillin, 87 to Amoxicillin/Clavulanic acid. MRSA in the respiratory tract had a prevalence of 49%, as the sole etiological agent in 51% of the cases, and in association with other pathogens in 49% of the cases.

Conclusion. No difference whatsoever was found regarding the resistance of MRSA, whether as a sole etiological agent, or in combination with others.

-MRSA is resistant to other antibiotics as well: Penicillin, Tetracyclin, Clarithromycin, Rifampicin, Amoxicillin/ Clavulanic acid, Ciprofloxacin (multidrug resistance).

Keywords: MRSA, sensitivity, resistance, antibiotics

NEWCASTLE DISEASE VIRUS-INDUCED IMMUNE RESPONSE: A NEW HORIZON IN CANCER THERAPIES

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Introduction. Knowledge of mechanisms causing cancer have not led fully to the development of optimal treatments, therefore mortality by cancer is increasing worldwide. Newcastle Disease Virus (NDV) is an avian paramyxovirus that possesses a natural preference for replication in tumor cells compared to normal cells. The purpose of this study is to investigate the role of the immune response in NDV stained tumor cell lines.

Material and methods. We used NDV LaSota strain to infect three human tumor cell lines: small lung carcinoma (A549) and glioblastoma (T98G, U87). Different titrations of NDV were tested. In order to observe the difference in evolution, interferons (IFNs) Aplha, Beta, Lambda were added and combined. At 72 hours post-infection cell lysis was induced and the Bradford assay was performed to determine the concentration of proteins. Subsequently, Western Blotting was used to identify Caspase-3 as an imunohistochemical marker for cell apoptosis.

Results. In both lung and brain cancer cell lines we identified a dramatic increase of Caspase-3 activation and a higher number of apoptotic cells in comparison to the normal cells that have been through the same process of infection. Using interferons against neoplastic cells proved that the most effective in moderating apoptosis is Alpha Interferon, tested by itself and merged with Beta Interferon. Also, we observed that NDV infection predominantly induced the production of IFN-Aplha, IFN-Beta and IFN-Lambda in tumor cells, while in normal cells only an increase in IFN-Lambda was noticed.

Conclusion. The data we have gathered, together with data from a range of different studies, clearly indicate Newcastle Disease Virus as a potential efficient treatment for a wide variety of cancers. Step by step, the development of the NDV is a promising direction in order to provide the optimal oncolytic virus.

Keywords: Newcastle disease virus, virotherapy, interferons, oncolytic virus

A RETROSPECTIVE EVALUATION OF CYSTIC TUMORS

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Introduction. Cystic tumors may present benign or malignant behaviour and histopathological differentation is sometimes difficult. The aim of this paper is to present the particular features of cystic tumors.

Material and methods. The clinic-pathological aspects were examined in 628 consecutive cases of cystic lesions diagnosed during 2014-2017 at the Department of Pathology of Clinical County Emergency Hospital of Tirgu-Mures, Romania.

Results. From the 628 cases, 73 were diagnosed as cystic tumors and 555 cases were non-tumor lesions. The tumor cysts were predominantly located in the ovary (n=63), followed by pancreas (n=5) and salivary glands (n=2). Two benign tumors of the dermis and one retroperitoneal lymphangioma were also identified. Only four of the 63 ovarian tumors presented bilateral involvement of the ovaries. In all of these cases it was about serous cystadenomas/cystadenofibromas. From the other 59 ovarian tumors, 27 were dermoid cysts (mature teratomas), followed by serous cystadenomas/cystadenofibromas (n=15), cystic mucinous tumors with benign or borderline features (n=14) and mucinous adenocarcinomas (n=3).

Conclusion. The cystic tumors presented mostly unilateral involvement of the ovary. The cystic aspect of a tumor may be an indicator of benign behaviour.

Keywords: cyst, tumor, ovary, pancreas

Surgical Science

APPLICATION OF THE ALVARADO SCORE ON CHILDREN LESS THAN SIXTEEN YEARS OF AGE WITH ACUTE APPENDICITIS

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Introduction. Acute appendicitis belongs to the most common reasons for surgical interventions in children. In 1492 Leonardo da Vinci did the first anatomical drawings describing the appendix as „an earlike structure" arising from the cecum. Appendicitis in children still remains a diagnostic challenge, especially in patients under the age of five years. Therefore this study has been performed in order to investigate whether the application of the Alvarado Scoring system on children would help the physician with either confirming or withdrawing the suspicion of acute appendicitis.

Material and methods. 261 Children under the age of sixteen admitted to the Department of Pediatric Surgery in Cluj-Napoca with the diagnosis of an acute appendicitis followed by a surgical therapy were included within the study population. Data collection took place between 01.01.2015 and 31.12.2015. Relevant patient files have been selected via the hospitals database within the above mentioned period. Furthermore specific parameters were used.

Results. The gender distribution of children admitted to the pediatric emergency department between the age of 0-16 years was 1.2:1 (male / female). The white blood cell count variations have a strong correlation to the inflammatory evolution of the appendix. 69% of the children admitted to the pediatric emergency department had a Neutrophil count of >75%. The average C-reactive protein levels were rising in correlation to the morphological stage though relatively small values were obtained lowering its significance. 49% of the ultrasound results were equivocal and only lead to a suspicion of acute appendicitis. An increase in the Alvarado Score in correlation to the histopathological results has been noticed.

Conclusion. The Alvarado Score in combination with an ultrasound examination and C-reactive protein levels should be introduced to increase its diagnostic accuracy and significancy. All three clinical and paraclinical examinations together will enormously help the physician.

Keywords: acute appendicitis, children, Alvarado Score, CRP, WBC, US, clinical findings

TREATMENTS OF VASCULAR ANOMALIES IN CHILDREN

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Introduction. Vascular anomalies are common defects present in pediatric patients. Hemangiomas and vascular malformations, the two major classes of vascular anomalies, are still being studied for a better understanding, development and treatment. In 90% of the clinical cases, a correct diagnosis can be placed simply by taking into consideration three simple aspects: the age of the patient, the debut of the lesion and its clinical signs.

Material and methods. We conducted a retrospective study from January 2014 to May 2016, analyzing 142 cases of children presenting vascular anomalies in the Pediatric Surgery and Orthopedics Clinic of Pediatric Emergency Hospital „Louis Turcanu" Timisoara. We analyzed demographic and anamnestic data, clinical evolution, management, treatment and the medical outcome. We examined vascular tumors separately from vascular malformations. The methods of diagnosis were in concordance with the newest classifications of ISSVA (2014). There were various treatments used.

Results. The highest anomaly statistically found was the hemangioma (13.38%), specifically the infantile hemangioma, with a higher incidence in female patients (70.93%). The most applied treatment was the surgical one (59.15%), due to the fact that the retrospective study was done in a surgical clinic. The treatment with ß blockers was the second most effective, used in 38.37% cases.

Conclusion. Although the surgical treatment had good results, we recommend ß blockers as an elective treatment for infantile hemangioma. Also, a documented clinical and histological classification for vascular anomalies and a multidisciplinary team are required in order to diagnose correctly and choose the best treatment option for each patient.

Keywords: vascular anomalies, infantile hemangioma, ß blockers, multidisciplinary team

BIOCHEMICAL CHANGES IN THE SMALL INTESTINE DURING EARLY STAGES OF EXPERIMENTAL ACUTE PANCREATITIS

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COORDINATOR: ROTAR OLEKSANDR

Introduction. Infection of pancreatic necrosis by gut bacteria is a major cause of morbidity and mortality in patients with acute necrotizing pancreatitis (ANP). Bacterial translocation occurs due to increase of intestinal permeability as a result of disorders of intestinal metabolism. So aim of our study was to investigate the biochemical changes in small intestine during early stages of experimental AP.

Material and methods. In 70 Wistar rats ANP was induced by intraperitoneal injection of 250 mg/100 g of 20% L-arginine solution twice during 1 hour period. Changes of pro- and antioxidative status, connective tissue markers, proteolytic activity in small intestinal mucosal layer have been investigated during first 72 hours of ANP.

Results. ANP was accompanied by activation of oxidant stress. Concentration of diene conjugates, malone dialdehyde and nitric oxide metabolites increased since 12 hours after ANP initiation and reached maximum in 24 hours: levels exceeded values of intact rats on 22%, 10% and 18% accordingly ($p < 0.05$). Their neutralization occurred after 48 hours as a result of activation of antioxidant defense: superoxide dismutase and the catalase concentrations has been raised in 1.6 and 1.7 times ($p < 0.05$). Under influence of oxidant stress collagenolytic activity raised in 1.5 times after 12 hours and remained high until the end of experiment. Simultaneously changes in proteoglycans and glycoproteins structure appeared: concentration of hydroxiproline and hexuronic acids decreased on 15-35% ($p < 0.05$) since 24 h.

Conclusion. In early terms of ANP oxidant stress activate collagenolytic activity and destroy structure of proteoglycans and glycoproteins in small bowel mucosal layer and represent morphological basis for development of intestinal failure.

Keywords: acute necrotizing pancreatitis, intestinal mucosae, biochemical changes

ABDOMINAL COMPARTMENT SYNDROME, A LIFE-THREATENING COMPLICATION OF ACUTE SEVERE PANCREATITIS

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Introduction. Abdominal compartment syndrome (ACS) is defined as sustained intraabdominal pressure above 20mmHg which can be a life-threatening complication of acute severe pancreatitis (ASP).

Material and methods. In a period of three years (2013-2016) 270 patients were admitted to Sf. Spiridon Hospital, 3rd Surgery department, Iasi. 54 patients (20%) were diagnosed with ASP of diverse origin, of which 20 (37%) presented with early ACS. These patients (median age n=43, female n=11, male=9) were included in this study. Treatment and postoperative course were assessed.

Results. To achieve abdominal decompression 15 patients underwent vacuum laparostomy while the remaining five were operated with classic laparostomy. Both approaches partly included cholecystectomy with biliary drainage, necrosectomy and drainage of pancreatic and parapancreatic pus collections. Surgical decompression was chosen two days' post diagnosis of ACS, when medical treatment in the ICU proved to be insufficient. Peritoneal fluid cultures were positive in all cases for Klebsiella Pneumoniae and Acinetobacter, multiple resistant strains. 16 of 20 patients with ACS passed away due to septic shock and multiple organ failure (mortality rate 80%) This equals 29.6% of the 54 patients initially presenting with ASP. The surviving 4 patients were discharged after lengthy hospitalization.

Conclusion. Acute severe pancreatitis complicated with abdominal compartment syndrome has a high mortality despite ICU support, therefore careful observation of the progress of medical therapy is paramount. Surgical treatment options (abdominal decompression) should be considered in time, and not delayed, if indicated.

Keywords: abdominal compartment syndrome, pancreatitis, decompression

ANATOMICAL STUDY OF THE INTERNAL THORACIC ARTERY AND IT'S COLLATERAL BRANCHES - SURGICAL IMPLICATIONS

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COORDINATOR: URSUT BOGDAN

Introduction. The internal thoracic artery originates proximal to the subclavian artery, two centimeters superior to the clavicle. It has a descending trajectory, posterior to the first six costal cartilages. Before entering the thorax, the internal thoracic artery can be found posterior to the clavicle, internal jugular vein, and brachiocephalic veins. After it enters the thorax, the phrenic nerve crosses over it anteriorly from lateral to medial. The artery continues downwards almost vertically, and bifurcates upon reaching the seventh intercostal space into two terminal branches- the musculophrenic artery, and the superior epigastric artery. The internal thoracic artery has sternal collateral branches, which together with branches of the pericardiophrenic, posterior intercostal, and bronchial arteries participate in forming the sub pleural mediastinal plexus. The internal thoracic artery gives off branches for the first six anterior intercostal spaces, which anastomose with the posterior intercostal arteries, vascularizing the pectoral muscles, mammary glands, and skin in their respective region. Perforating branches of the internal thoracic artery penetrate into the pectoral muscles and anastomose with branches of the thoracoacromial artery.

Material and methods. In this paper we studied four cadavers from the Human Anatomy Cathedra of Carol Davila University of Medicine and Pharmacy using dissection methods to study the morphology and trajectory of the internal thoracic artery and its principal collateral branches. On top of that, we collected data from open heart surgery in which the internal thoracic artery was used for coronary bypass surgery.

Results. Dissection revealed no major variation from expected trajectory. However, during open heart surgery we were able to identify an accessory internal thoracic artery.

Conclusion. When harvesting the internal thoracic artery, it should be kept in mind that it has many collateral branches which supply the sternum, intercostal spaces and thoracic wall, thus harvesting it should be done with caution to preserve the blood supply to these locations.

Keywords: coronary bypass, internal thoracic artery, collateral branches, vascularization

SUSCEPTIBILITY OF STOMACH AND UPPER DUODENUM TO ISCHEMIC NECROSIS AFTER SUBTOTAL GASTRECTOMY

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Introduction. Subtotal gastrectomy is indicated in patients with adenocarcinomas or persistent ulcers. The procedure involves resecting up to 80% of the stomach and in rare cases, may lead to postoperative ischemic necrosis of proximal or distal remnants. This study seeks to revisit and outline the gross arterial anatomy of the stomach and proximal duodenum and apply it to explain which areas are especially susceptible to postoperative ischemic necrosis.

Material and methods. Three embalmed male cadavers were used for documenting vascular anatomy of the abdominal esophagus, stomach, and proximal duodenum. Additionally, a fourth cadaver was used to simulate a subtotal gastrectomy procedure and outline which vessels are classically resected and in what sequence. Lastly, a set of angiograms from post-op patients were used to further substantiate which areas appeared to lack robust anastomotic blood supply.

Results. All cadaver dissections showed fairly standard vascular anatomy, except the superior duodenum. All cadavers lacked a posterior gastric artery. The duodenum was supplied by the posterior superior pancreato-duodenal artery and a supraduodenal artery; additionally, in one cadaver a few centimeters of the superior duodenum received supply from the right gastric artery.

Conclusion. Two areas are susceptible: the fundus of the stomach and the superior portion of the duodenum. The duodenum is supplied by end arteries and will depend on preservation of the posterior superior pancreaticoduodenal artery when ligating the right gastroepiploic artery off of the gastroduodenal artery. The viability of the gastric remnant will be determined by the preservation of the short gastric arteries. A portion of the gastrosplenic ligament needs to be resected to mobilize the greater curvature and may require sacrificing some branches of the short gastric. For this reason, if a splenectomy is required to assure complete nodal resection, a total gastrectomy should be chosen to avoid devascularizing the gastric remnant.

Keywords: ischemic necrosis, subtotal gastrectomy, vascularization

OBTAINING ADEQUATE SURGICAL MARGIN STATUS IN THE BREAST-CONSERVATION THERAPY: INTRAOPERATIVE ULTRASOUND-GUIDED RESECTION VERSUS SPECIMEN MAMMOGRAPHY

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Introduction. The purpose of breast-conserving surgery (BCS) for women with cancer is to perform an oncological radical procedure with disease-free margins at the final histological assessment and with the best aesthetic result possible. Intraoperative ultrasound and postoperative specimen mammography may reduce the rates of positive margins and reexcision among patients undergoing conserving therapy.

Material and methods. A prospective study was performed on 83 patients who underwent breast conservation surgery for early breast cancer (pT1-3a pN0-1 M0) between 2014 and 2016. After excision the specimen was orientated in the operating room by the surgeon. Metallic clips and threads were placed on margins: one clip and the long thread at 12 o'clock, two clips and the short threads at 9 o'clock. Next step was intraoperative ultrasound of the specimen with selective margin shaving, afterwards mammography to identify and document the lesion and finally histopathological examination of the specimen with reporting the gross and microscopic margins. The positive margins required re-excision or boost of radiation at the posterior or anterior margins, depending on the case.

Results. We set a cut-off at 2 mm. The sensitivity and specificity of the intraoperative margin assessment via the ultrasound method were 90.91% (95% CI 70.84-98.88%) and 67.21% (95% CI 54-78.69%) respectively. The sensitivity and specificity of the postoperative margin assessment via the mammographic procedure were 45.45% (95% CI 24.39-67.79%) and 85.25% (95% CI 73.83-93.02%) respectively. There was positive correlation between the histopathological and intraoperative ultrasound exam (p=0.18) and negative correlation between the histopathological exam and the post-operative mammographic exam (p=0.68).

Conclusion. According to our results, the intraoperative ultrasound of the breast specimen for a cutoff at 2 mm can decrease the rates of margin positivity compared to the mammographic procedure and has the potential to diminish the number of subsequent undesired mastectomies.

Keywords: breast-conservation surgery, surgical margin status, intraoperative ultrasound, specimen mammography

PANCREATO-DUODENECTOMY WITH CLOSING OF THE PANCREATIC STUMP

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Introduction. Pancreatic fistula and anastomotic dehiscence following the pancreato-enteral anastomosis, used in the cephalic pancreato-duodenectomy (Whipple procedure), represent frequent complications of this intervention. Managing the pancreatic stump is the most important part of the pancreatoduodenectomy, in order to prevent the fistula and anastomotic dehiscence.

Material and methods. We present the 2nd surgery clinic experience of 13 cases of cephalic pancreato-duodenectomies (from 27 pancreatic resections); in 6 cases, pancreato-enteral anastomosis was used, while in another 7 cases, a non- anastomotic procedure was used, the pancreatic remains being sutured after the ligature of Wirsung's duct.

Results. All 6 patients developed pancreatic fistulas that were managed differently: in 5 cases, the flow dropped gradually to spontaneous resolution; in the 6th patient's case, the fistula flow maintained to a 300 ml/24h and a fistulo-jejunal anastomosis was practiced.

Conclusion. The abandon of the pancreatic stump following the cephalic pancreato-duodenectomy is an alternative to anastomosis, having a higher risk, but a controlable one.

Keywords: pancreato-duodenectomy, stump, anastomosis, fistula

THE VALUE OF THORACOSCOPY IN CDH TREATMENT

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Introduction. Since the introduction of Minimally Invasive Surgery in the Department of Pediatric Surgery, Emergency Hospital of Craiova Romania, in 2012, thoracoscopy became „the gold standard" in surgical treatment of Congenital Diaphragmatic Hernia (CDH).

Material and methods. A number of 4 cases were operated for CDH (1 case on right diaphragm). One case was a severe premature baby (1000 grams). In all four cases different types of repair were performed. In one case recurrence occurred requiring prosthetic material. In one case rib anchorage was achieved, in two cases primary simple suture of the diaphragm was performed.

Results. One case in our short patient list, died postoperatively after 4 weeks. One case with recurrence, treated through thoracoscopy with prosthetic material.

Conclusion. Thoracoscopy is a fair option for CDH treatment, not very easy to do in some cases, according to the type of hernia but well tolerated by babies, even in very small patients. Positive pressure into the thoracic cavity is helpful for bowel reduction but the insufflation can be stopped almost in half of the operative period.

Keywords: thoracoscopy, minimally invasive surgery, congenital diaphragmatic hernia

TRANSPERINEAL EVALUATION OF FETAL HEAD ENGAGEMENT IN PRIMIPAROUS PATIENTS AT TERM

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COORDINATORS: ILIESCU DOMINIC, ZORILA LUCIAN

Introduction. Clinical lack of fetal head engagement (FHE) in term primiparous women has a controversial incidence and has been associated with labour arrest disorders. Our objective was to determine longitudinally the rate of FHE using transperineal ultrasound in primiparous at term. We also analysed the temporal evolution of fetal head situation at term and the correlations with the delivery mode.

Material and methods. Unselected primiparous were invited for a series of weekly scans, starting at 37GW. We determined the occiput position, progression angle (PA), progression distance (PD), direction angle (DA) and head to perineum distance (HPD). The measurements were compared against the cut-offs for station 0 from the literature (PA >116 - 120°, PD >30 mm, and HPD <36 mm). Maternal and labor characteristics were noted.

Results. In 122 studied term primiparous the rates of FHE at any examination at term were between 3.3 - 5.7% (depending on the cut-off). The majority of the respective cases delivered vaginally. FHE was found in 1.58-2.94% at 37GW and the rates increased at the examinations performed within the week before delivery: 2.45% for AoP and 4.09% for HPD and PD. The primiparous that delivered by CS displayed a significant smaller PAs in the week prior to delivery (88°) and a similar trend was observed for the other linear parameters investigated. We found a good correlation between the US parameters (AoP, PD, HPD) and the majority of FHE cases achieved simultaneously multiple cut-offs (57%).

Conclusion. Objective data show that FHE is rarely present at term and primiparous women should not be alarmed because of fetal head non-engagement. Clinical FHE rate at term is reported differently and potentially overestimated in the literature due to the subjectivity of the method and the different perceptions regarding the engagement of the fetal head.

Keywords: transperineal scan, fetal head engagement, primiparous, prenatal diagnosis

SURGICAL APPROACHES FOR VARIOUS TYPES OF ABDOMINAL TUBERCULOSIS

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Introduction. Abdominal tuberculosis is a Mycobacterium tuberculosis infection with a hematogenous spread from pulmonary foci, affecting extrapulmonary areas such as gastrointestinal tractum, peritoneum, mesentery and abdominal lymph nodes.

Material and methods. We performed a retrospective study on 22 patients with abdominal tuberculosis (TB), by using „C.F. 2" Hospital's records in Bucharest, between 1995-2006. There were a number of 16 cases with TB peritonitis, 5 with intestinal TB and 1 with mesenteric lymph nodes TB. Laboratory tests showed mild leukocytosis with lymphocytosis (77%), elevated ESR (77%), anemia (27%), increased liver transaminases (14%). Ascitic fluid analysis în TB peritonitis cases showed an exudative nature of ascites with an amount of proteins < 3 g/dl; growing Koch bacillus on specific cultures concluded positive for only one patient. CT investigation also revealed large amount of ascitic fluid, infiltration of the mesentery and transverse mesocolon, reticulo-macronodular infiltrates among intraperitoneal and subperitoneal fat. For patients with TB peritonitis, laparoscopic biopsy was performed, following the parietal peritoneum, the great omentum and the peritoneal tumor. This investigation highlighted caseating giganto-epithelioid granuloma inflammation. Diagnosis was objectified based on ascitic fluid analysis, microbiological tests, laparoscopy and peritoneal biopsy, showing caseating granulomas on histological samples.

Results. For the intestinal TB, a right hemicolectomy with ileo-transverse anastomosis on lateral side for ileo-cecal localization altogether with 4 segmental enterectomies with ileo-ileal anastomosis was performed. Overall, 90% of the patients had promising results. There were two post-operative complications: a low flow colon fistula, closed spontaneously after laparoscopic approach and an ascites fistula appeared after the classic surgery approach.

Conclusion. Abdominal TB comes with an insidious onset and therefore it is difficult to diagnose. An excellent method proves to be CT imaging by showing the extent of tuberculous peritonitis. Treatment for this condition requires tuberculostatic medication.

Keywords: abdominal tuberculosis, ascites, laparoscopy, tuberculostatic medication

THE EVOLUTION OF SURGICAL MANAGEMENT OF COMPLICATED COLON CANCER

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Introduction. The goal of the study is to follow the evolution in time of the therapeutic approach in complicated colon cancer regarding single stage or multiple stage surgery.

Material and methods. We analyzed two groups of patients with colon cancer admitted to 1st Surgical Clinic of The Emergency County Clinical Hospital of Craiova. Group 1 included colon cancer patients admitted between 2001 and 2010. Group 2 included patients admitted between 2011 and 2016. We mainly followed complicated cancer cases that underwent emergency surgery and the surgical approach for those cases. Later we compared single stage and multiple stage procedures for the two groups thus attempting to show changes in surgical management between the two time periods.

Results. Group 1 included 370 colon cancer patients admitted between 2001 and 2010. 121 patients (32.7%) required emergency surgery (23 patients (19%) with right colon cancer, 98 patients (81%) with left colon cancer). Single stage procedures (colon resection with anastomosis): 23 cases (12 patients with right colon cancer (52.1% of complicated right colon cancers); 11 cases of left colon cancer representing 11.2% of complicated left colon cancers). Multiple stage procedures: 98 cases (11 cases with right colon cancer (47.9%) and 87 cases with left colon cancer - 88.8%). Group 2 included 265 cases. 85 cases underwent emergency surgery. 65 patients with complicated left colon cancer (22 single stage procedures and 37 multiple stage procedures) and 23 patients with complicated right colon cancer (15 single stage interventions and 8 multiple stage procedures).

Conclusion. The evolution in time of emergency surgical approach in complicated colon cancer consists in a bolder approach of cases with the increase of the number of resection with primary anastomosis procedures.

Keywords: subtotal colectomy, obstruction, perforation, anastomosis

PANCREATIC PSEUDOCYST - DIAGNOSIS AND TREATMENT PROBLEMS

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Introduction. The pseudocyst of the pancreas is a relatively common complication of acute pancreatitis, but also occurs in the evolution of chronic pancreatitis after pancreatic trauma. The severity of the situation is the possibility of evolution of other types of complication such as: bleeding, rupture or infection.

Material and methods. Between 2010-2016, at the 3rd Surgery Clinic in Craiova, there were admitted 15 patients with pancreatic pseudocyst, 10 cases occurred after acute pancreatitis, 4 cases after chronic pancreatitis and one after a concussion pancreatic, the average age of the patients was 52.3 years old. Abdominal ultrasound and CT scan were the two methods of investigation used in the diagnosis and therapeutic indication (pseudocyst size over 5 cm, pseudocyst wall maturation). External pseudocyst drainage was practiced in 2 cases and in 13 cases was practiced internal drainage: pseudochistogastroanastomosis in 9 cases and pseudocyst-jejunal anastomosis in 4 cases. Pancreatic pseudocysts with a size below 5cm, that have undergone conservative treatment, were not taken into the study.

Results. The postoperative evolution was favorable; in 5 cases there were recorded postoperative complications: 2 cases of upper gastrointestinal hemorrhage that were stopped through medication and 3 cases of parietal suppuration.

Conclusion. Surgery is indicated for pancreatic pseudocyst with a diameter greater than 5 cm, internal drainage representing indication of choice.

Keywords: pseudocyst, pseudocyst-gastric anastomosis, pseudocyst-jejunal anastomosis, pancreatitis

IS ANTIBIOTIC PROPHYLAXIS FOR OPEN THYROIDECTOMIES NECESSARY? A RANDOMIZED TRIAL IN SOUTH INDIAN POPULATION

AUTHOR: BALASUBRMANIAN VATHUL
COORDINATOR: MUTHUKUMAR PARI

Introduction. Thyroidectomies are clean surgical operations, and owing to the advent of advanced sterilization and operating rooms, post op infections are uncommon. Surgical antimicrobial prophylaxis (SAP) was introduced to prevent surgical site infections (SSI). International guidelines don't routinely recommend antibiotic prophylaxis since unnecessary courses are often associated with- Resistance, superinfection with resistant pathogens, toxicity, increased cost and hospital stay Despite this antibiotics are prescribed in thyroidectomies. In India, the lack of guidelines for surgical antimicrobial prophylaxis justifies a need to generate baseline data on its usage. This study's aim is to assess the current use of perioperative antimicrobials in a tertiary care hospital. (Sri Ramachandra Medical College).

Material and methods. 120 patients with benign thyroid nodule undergoing thyroidectomies (Total or Hemi) in the General Surgery Department of Sri Ramachandra University, were included with informed consent. 18 patients withdrew, due to lack of follow-up. 50 received three or more antibiotic doses, while 52 of them received none. Fine Needle Aspiration Cytology and Ultrasonography was done for all patients. Inclusion Criteria ● Benign (FNAC) ● Not Immunocompromised ● Age >18 <70 ● 3 months follow up. The surgery duration was approximately 90 minutes. Post-op drain was placed. Patients were checked for SSI on days 1, 3 followed by 3 months of check-up.

Results. 3-4 doses of antibiotics were given (3rd Gen Cephalosporins) to the 50 patients in the antibiotic group. SSI evaluated on postop days 1,3; 2 cases of redness was seen, hospital stay was 4 days. The 52 patients who weren't given antibiotics also had 2 cases of SSI (1 redness, 1 edema). The hospital stay was shorter (3 days). SSI required short course of antibiotics.

Conclusion. Rampant use of antibiotic prophylaxis for thyroidectomy is unnecessary as the SSI rates in both groups are similar. This reduces cost, antibiotic resistance, hospital stay in India, which is a front runner in antibiotic resistance.

Keywords: antibiotic prophylaxis, thyroidectomy, surgical site infection, clean surgery

TOTAL LAPAROSCOPIC RADICAL HYSTERECTOMY WITH PELVIC LYMPHADENECTOMY IN CERVICAL CARCINOMA: ANALYSIS OF THE MINIMALLY INVASIVE SURGERY IN GYNECOLOGIC ONCOLOGY

AUTHOR: MUSCĂ ALEXANDRA
COORDINATOR: CĂPÎLNĂ MIHAI EMIL

Introduction. In the modern oncologic era, a transition between the invasive procedures to less invasive procedures which respect the anatomy is observed and Total Laparoscopic Radical Histerectomy (TLRH) represents the perfect example. There is no doubt about the feasibility of TLRH, the procedure being associated with lower postoperative pain, less blood loss, shorter admissions, less use of analgesics, faster recoveries and a cosmetic effect. The guideline indications are IA2-IB1 FIGO and borderline indications as IB2-IIA.

Material and methods. Between November 2014 and February 2017, 7 patients with squamous cell carcinoma of the cervix underwent TLRH. The BMI was under 23.2 kg/m2 for all the patients and the mean age was 41.8 years. Stage IA2 FIGO was in one patient and stage IB1 FIGO in the other six.

Results. For 3 patients (42.85%) between 32-36 years, the ovaries were conserved, while at the patients over 50 years bilateral ovariectomy was performed. The median duration of the intervention was 249 minutes and the quantity of blood loss varied between 100 and 250 ml. No intraoperative complications were observed and the postoperative evolution was good, with the suppression of the bladder catheter in day 4 and the abdominal drain removal in the 5-6 postop. Only 2 patients (28.57%) needed the replacement of the bladder catheter for another 48 hours due to a bladder distention. All the patients were discharged in day 7 postoperative. The lymphadenectomy was performed in all patients with a mean number of lymph nodes removed of 46.2, all negative. One patient (14.28%) received postoperative adjuvant radiotherapy.

Conclusion. TLRH with pelvic lymphadenectomy can be safely performed, as a feasible procedure. Laparoscopic interventions in gynecological oncology pathology are difficult due to technical complexity, few existing centers of excellence and long learning curve. Nevertheless, for more voluminous tumors, more data of the oncological safety is needed.

Keywords: TLRH, carcinoma of the cervix, IA2-IB1 FIGO, feasible procedure

USE OF LINEAR STAPLERS IN DIFFICULT LAPAROSCOPIC APPENDECTOMY

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Introduction. Laparoscopic appendectomy gained popularity in past decades, being today a feasible option to open appendectomy. Acute appendicitis - the most common surgical emergency (130,000/y in Germany); more than half performed laparoscopically. Complicated acute appendicitis - distinct entity – gangrenous appendicitis ± perforation, with various degrees of peritonitis.

Material and methods. 11 cases in the past year operated by a single team (5 cases - endoloops, 5 cases - EndoGIA 30-3.5/30-4.8). Acute gangrenous perforated appendicitis, with pericecal abscess or diffuse peritonitis (Different degrees of obesity). 1 conversion - intraperitoneal adhesions. Discharge of patients between the 2nd and 5th postoperative day. Clips (stump under 10 mm), preformed knots (Roeder or endoloop), 10 mm - umbilical port, 10 mm - suprapubic/left flank por, 5 mm - right flank, Endo-GIA - requires a 12 mm port. Retrieval of appendix after introducing in an endobag. Irrigation of peritoneal cavity. Drainage. Systemic antibiotherapy.

Results. Median operative time was 52 min. (40-75 min). Without stump related complications or intra-abdominal abscesses. 1 case - surgical site infection. Discharge of patients between the 2nd and 5th postoperative day.

Conclusion. Laparoscopic appendectomy is a safe and feasible option treatment of acute appendicitis even in complicated forms, despite higher costs.

Keywords: linear staplers, laparoscopic appendectomy, acute appendicitis

ASSESSMENT OF POSTOPERATIVE RECOVERY IN PATIENTS WITH CARTILAGE INJURY FOLLOWING PRIDIE REVASCULARIZATION DRILLING

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CO-AUTHOR: BOTAN MATEI
COORDINATOR: BATAGA TIBERIU

Introduction. Along with the advancement of investigation and imaging procedures in orthopedics, encountering articular cartilage damage during investigations of the knee has become a common occurrence, with one study placing the frequency at 63% of all knee arthroscopies in a sample of 31,516 patients. This frequency has pushed the surgical community into developing several cartilage restorative techniques, some of which include: debridement, Pridie drilling, osteochondral allograft, osteochondral autograft (mosaicplasty), and autologous chondrocyte transplantation The aim of our study is to evaluate the postoperative recovery of patients that underwent the Pridie drilling technique.

Material and methods. We used a modified IKDC (International Knee Documentation Committee) form to evaluate the postoperative recovery of the knee and general health. We assessed the pain, mobility, swelling and social reintegration. The study consisted in a series of 27 operated patients with grade II and III cartilage injury according to the ICRS classification. There were 10 patient with grade II and 17 with grade III cartilage injury, aged between 27 and 72 years old.

Results. In our study the mean values for the knee evaluation were 7.785 for grade II lesions and 5.42 for grade III lesions, 7.23 and 5.6 for the general health evaluation. Our results showed a statistically significant difference between the scores obtained for the postoperative evolution of the knee function and general health in patients with grade II compared to patients with grade III chondral lesions ($p=0.0109$ for the knee evaluation and $p=0.0332$ for the general health evaluation). Sex and age were also factors in the recovery but did not have a statistically significant impact.

Conclusion. According to our findings the recovery is improved after surgery for grade II lesions and not influenced by sex and age. This leads us to the conclusion that it is important to diagnose and treat the disease in an earlier stage for better outcomes.

Keywords: Pridie, drill, chondral, lesion

USING SIMULATORS SUCH AS LAPAROSCOPIC BOX TRAINERS IMPROVES THE PRACTICAL SKILLS OF UROLOGY RESIDENTS

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COORDINATOR: TOMA CRISTIAN

Introduction. Minimally invasive surgery represents the actual tendency in many medical domains, including also urology. Gaining practical skills for such procedures becomes essential when preparing the resident physicians in urology. The purpose of this study is to demonstrate that using medical simulation as an education tool improves the practical skills of the urology house officers in laparoscopy by using an accessible tool such as a box trainer.

Material and methods. The study includes the objective and subjective evaluation of the practical skills of 15 residents urologists with limited experience in laparoscopy. Each participant was evaluated prior to the practical activity on the simulator simulator both in a subjective manner by filling a self-evaluation form and objective by timing the duration of doing a square knot, a surgical knot and 2 types of sutures on synthetic materials (simple interrupted, simple continuous suture) on a 10 cm wound. Residents were then re-evaluated after 5 hours of practice on the simulator by performing the same maneuvers from the beginning, subjective by completing the same self-evaluation form and objective, under the chronometer.

Results. Medical education with the help of a laparoscopic box trainer is an useful tool, observing significant differences in the group of residents during the execution of general maneuvers and the ease of their practice after the practice period.

Conclusion. We conclude that medical simulators needs to bacome a form of medical education for every health-care practitioners in order to provide better care for the patients.

Keywords: simulation, laparoscopy, box trainer, urology

ASSESSMENT OF PERCUTANEOUS CLOSURE OF GERBODE DEFECT IN CHILDREN

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COORDINATOR: WERYŃSKI PIOTR

Introduction. Interventional VSD closing allows for avoiding surgery and is indicated when operative access is difficult and with high risk. The choice of implant type depends on VSD location, size, number and interventional team experience. One of the methods used to close of the various types of VSD is Nit-occlud Spiral Coil system. The aim of the report is presentation of our experience with this system in left ventricle - right atrium shunt (LV-RA shunt) atrioventricular septal defects in children.

Material and methods. The material consisted of 5 (3F/2M) patients aged 8-18 year, body mass 24- 56 kg, qualified after preliminary echocardiographic evaluation. All 5 pts with acquired LV-to-RA shunts were diagnosed as a complication of previous cardiac operations. The implants location, size and number were determined based on angiocardiography results. The procedure was in keeping with the manufacturer protocol.

Results. The size of LV-RA shunt was from 3 to 6 mm measured based on angiography. In all with LV-to-RA shunts the procedures were successful without complications. In one session - 2 coils size: 8x6 mm and 3 coils size: 10x6 mm were used. In follow-up after 16 months were no residual shunts and no rhythm disturbances were observed. The LV systolic and diastolic function was normal.

Conclusion. Pfm-Le VSD coil system is effective, especially useful in closing atypical, and surgically difficult to access VSDs. Implant plasticity ensures its effectiveness and prevents of significant interventricular septal distortion. It also provides an interventional option of treatment of specific lesions such as LV-RA shunts.

Keywords: LV- RA shunt, Gerbode defect, septal defect

THE EMBRYOLOGICAL AND ANATOMICAL BACKGROUND IN URETEROPELVIC JUNCTION OBSTRUCTION

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Introduction. An ureteropelvic junction (UPJ) obstruction is defined as a total or partial obstacle of the outflow of urine from the kidney to the ureter. The etiology of UPJ obstruction consists of congenital or acquired conditions. UPJ obstruction represents the most common cause of pediatric hydronephrosis and can usually be detected by ultrasonography after the 15th to 16th week of gestation. The question that the doctor has to answer in dealing with suspected UPJ obstruction is whether the radiologic findings correlate with the severity of the stenosis. Although drainage that has been slow for a long period of time can sometimes spontaneously improve, it is essential to define the exact anatomy of the urinary system and the underlying kidney function when evaluating and treating these patients.

Material and methods. In this retrospective study of 139 cases of UPJ obstruction operated at the „Marie Slodowska Curie" Emergency Hospital, the relevance of ultrasonography to the functional and anatomic evaluation of UPJ obstruction was examined. First, the urinary tract development was closely monitored using fetal ultrasonography. After birth, the degree of stenosis was fully assessed, including once again an ultrasound exam.

Results. The urinary tract dilation was classified using the anteroposterior diameter of the renal pelvis and its surface area into mild, moderate and severe.

Conclusion. For this condition, appropriate treatment depends on a multitude of factors, including but not limited to clinical evolution, the degree of dilation, the presence or absence of urinary tract infection and renal scintigraphy.

Keywords: UPJ obstruction, pediatric hydronephrosis, renal scintigraphy

COMPARATIVE DATA BETWEEN CLINICAL AND AUDIOLOGICAL INVESTIGATIONS IN PATIENTS WITH CHRONIC SUPPURATIVE OTITIS MEDIA

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COORDINATOR: NEAGOȘ ADRIANA

Introduction. Chronic suppurative otitis media (CSOM) is a chronic inflammation of the middle ear and mastoid, which involves tympanic membrane perforation and chronic persistent drainage (more than 6 weeks).The main symptoms are painless otorrhea and hearing loss. Our objective was to find the correlation between clinical and audiological aspects in CSOM.

Material and methods. In a retrospective observational descriptive study we included a group of 68 patients (18-75 years old) hospitalized with CSOM in the Otorhinolaryngology Clinic of Targu-Mures between 2013-2014. In order to do the paper we analyzed a number of parameters from the patients sheets such as clinical signs and symptoms, demographic data, ENT clinical examination (otoscopy), tonal audiometry and final diagnostic results. The main inclusion criteria was the final diagnosis of simple CSOM. For processing patient data we used Microsoft Excel and we worked with the GRAPHPAD software in which we used the CHI square test to carry out the statistical analysis.

Results. Statistical analysis has showed no correlation between the initial diagnosis of CSOM and the various types of hearing loss determined by tonal audiometry. Therefore, between the initial diagnosis of CSOM and conductive hearing loss we had a P value of 0.54, and by associating the diagnosis of CSOM with mixed hearing loss the results were P= 0.59, which are both statistically insignificant. Also, the results for neurosensorial hearing loss were similar.

Conclusion. There is no correlation between the diagnosis of simple chronic suppurated otitis media and the types of hearing loss. Also, the majority of patients had conductive hearing loss which has a better outcome.

Keywords: hearing loss, CSOM, otoscopy, audiometry

MICROSURGICAL PIAL SYNANGIOSIS IN A RAT MODEL – A PRELIMINARY EXPERIMENTAL STUDY

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COORDINATORS: FILIP GABRIELA ADRIANA, FLORIAN IOAN STEFAN

Introduction. Pial synangiosis represents a neurosurgical procedure where the superficial temporal artery is translocated from the scalp to the surface of the brain in order to augment intracranial blood flow in severe cases of neurovascular pathologies such as Moyamoya syndrome. In due course, from the repositioned neovessels artery will arise that will supply the cortical tissue. Revascularisation surgery has a significant impact on cerebral hemodynamics, yet there are a multitude of unclear underlying factors and no animal models to reproduce these surgical conditions. The aim of the study was to elaborate a rodent model of pial synangiosis in order to establish an experimental protocol to enhance further research in this area.

Material and methods. The study was conducted on 12 adult male Wistar Rats (3-5 months, G=130±5 g). Animals were placed in a stereotaxic frame and neurosurgical steps were performed under the operating Leica microscope with the use of microsurgical instruments, suction tube and a drill. All surgical procedures, were performed under the microscope. 7 Tesla MRI and 3D reconstructions were done to evaluate the evolution of the operated segment.

Results. The dissection of the superficial temporary artery from the surrounding tissue was achieved and a 5 mm diameter craniotomy was performed, exposing the temporal cortex and underlying vessels. Due to its proper length and anatomical relations, the superficial temporal artery could be repositioned on the surface of the rodent pia mater and fixed there with a 10-0 thread. The craniotomy was closed with dental cement taking care not to block the vessel. Imagistic investigations revealed the integration of the artery on the surface of the brain.

Conclusion. Our experimental protocol establishes a rodent model of a pial synangiosis with the collateral hemodynamic processes. Deciphering these physiological mechanisms offers the promise of identifying new pharmacological elements that can enhance the target of this vascular neurosurgical procedure.

Keywords: pial synangiosis, rat model, Moyamoya, protocol

MODERN TECHNIQUES OF TREATING ACHALASIA

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COORDINATOR: NIȚU RADU

Introduction. The therapeutic management of achalasia has thoroughly modified through the last decades, laparoscopic Heller cardiomyotomy becoming a standard treatment. The association with an anti-reflux procedure diminishes the potential risk of post-operative pathological gastroesophageal reflux.

Material and methods. Between January 2014 - December 2016, in the General Surgery Clinic of the County Emergency Hospital, Constantza, specific surgical procedures were performed on 6 patients presenting this disease, the diagnosis being sustained by clinical and radiological information. Laparoscopic Heller cardiomyotomy, correlated with an anterior Dor hemi-valve, was practiced in all of these cases.

Results. The cases approached in a laparoscopic manner did not require conversion to the traditional open surgery. The postsurgical evolution was bereft of complications, allowing the patient discharge 3-5 days after the intervention. The follow-up of the subjects was conducted over a period of 3-18 months and consisted of clinical examination and radiological investigations; the excellent obtained results proved a lack of dysphagic complaints during the medical surveillance period.

Conclusion. The laparoscopic Heller cardiomyotomy, accompanied by an anti- reflux scheme, epitomizes a feasible and efficient method of treating achalasia, attaining favorable long-term outcomes, as far as the amelioration of dysphagic symptoms is targeted. Quick recovery and decreased hospitalization duration stand for the election of the presented procedure as a viable and optimal alternative to endoscopic therapies - consisting of successive dilations or Botox injections.

Keywords: achalasia, Heller cardiomyotomy, anti-reflux

RARE CONGENITAL DISORDER RESURFACE IN IASI - ARTHROGRYPOSIS

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COORDINATOR: BACUSCA AGNES

Introduction. Arthrogryposis Multiplex Congenita (AMC) is a rare condition with a prevalence of 1 in 3000 in Asia and Iran. In Europe however, 1 in 12000 live births with AMC have been reported by some authors. Almost every articulation in a patient with arthrogryposis is affected, with 84% involving all limbs, 11% only the legs, 4% only the arms. The most common cause is secondary to fetal akinesia due to oligohydramnios, defects in the fetal blood supply, hyperthermia, limb immobilization or viral infections. Other causes are intrinsic factors such as molecular, muscle- and connective tissue development disorders or neurological abnormalities. Oligohydramnios and fetal akinesia are an important factor for prematurity. Hypertrophic pyloric stenosis is an important complication of prematurity found primarily in male infants in a 5 to1 ratio, resulting in multiple hospital admissions.

Material and methods. An infant was diagnosed with AMC at birth. A remarkable diagnosis for the first time in 17 years in Iasi, Romania. The pregnancy involved many complications that were monitored via ultrasound in the first and second trimester.

Results. The pregnancy involved many complications: severe oligohydramnios and possible multiple malformation syndrome from the gestational age of 20 weeks. The delivery had been made by caesarian-section at the 33 weeks of pregnancy. At 2 months old, the infant was diagnosed with Hypertrophic pyloric stenosis, however the treatment didn't require surgery. Surgical management of AMC is not the primary management plan. After therapeutic resources, such as physical therapy, some joint contractures may still persist. This is usually the time when surgical intervention is discussed in order to provide the individual with a better quality of life.

Conclusion. The diagnosis will often be made by the associated symptoms and signs, as well as genetic tests. Physical therapy started early on, is just as important as the surgery procedures.

Keywords: arthrogryposis, akinesia, oligohydramnios, stenosis

HEIGHTS AND PITFALLS OF MITRAL VALVE REPAIR VERSUS REPLACEMENT: REVIEW OF LITERATURE

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COORDINATOR: NITU RADU

Introduction. Mitral regurgitation is frequently caused by degenerative changes of the valvular tissue, associated with other risk factors. Left untreated, this affection has a bad prognosis and can lead to myocardial infarction and pathological heart rhythms. The surgical treatment can be done either by Mitral Plasty or Replacement. However, choosing between the two procedures might be a challenge. Through this review, we summarized the available data regarding clinical outcomes of Mitral Valve Repair and Replacement, aiming to highlight the advantages and disadvantages of both techniques.

Material and methods. We systemized the information from two databases of Duke Clinical Research Institute and made a retrospective analysis with reference to all the procedures of Mitral Valve Replacement and Mitral Valve Repair performed on 266 patients, over a period of 3 years. We examined the mortality rate in both types of surgery and, considering the demographics, associated comorbidities and also the past surgical interventions, we made a detailed comparison between the two surgical techniques. The data was independently extracted by the two reviewers and meta-analyzed based on the predefined criteria of study.

Results. In comparison with patients that underwent Mitral Valve Replacement, those operated on for Mitral Valve Repair had a lower rate of operative and post- operative mortality, which demonstrates significantly reduced risks. Recurrence of at least mild mitral regurgitation was greater in Mitral Valve Repair, but the percentage of re-intervention was borderline similar.

Conclusion. To conclude, in the current analysis, it is demonstrated that although Mitral Valve Replacement is a durable solution rarely followed by a second intervention, Mitral Valve Repair is the elective procedure due to the low morbidity. However, a thorough anamnesis is compulsory for guidance towards the correct surgical treatment.

Keywords: mitral regurgitation, mitral valve repair, mitral valve replacement

DOWNFALLS OF A THORACIC TRAUMA CASE

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COORDINATOR: TUDORAN RODICA

Introduction. Thoracic trauma patients usually have a severe outcome due to sequencing of events and complexity of associated lesions. The most important life- threatening lesions should be diagnosed at the primary evaluation of the patient.

Material and methods. A 55 year-old man presented to the Emergency Department of Emergency County Hospital Constanta on 18.12.2016. The patient was victim of a car accident, right seated passenger with seatbelt on. He was admitted in the ER with low blood pressure (blood pressure 80/55 mmHg) and dyspnea. After the car accident, nausea appeared, along with chest pain (posterior, interscapular-vertebral) and dizziness. No other symptoms were mentioned by the patient and no traumatic marks were identified. The mechanism of injury was by frontal impact with another vehicle. The past medical history included chronic peripheral artery disease, amputation of inferior 1/3 of right thigh, recurrent paroxysmal atrial fibrillation.

Results. Contrast chest and abdominal CT scan in A&E pro- vided the etiology of shock: hepatic abscess in 2nd and 3rd liver segments, size 82 mm/75 mm/61 mm, extended to subphrenic space and transdiaphragmatic, to the anterior mediastinum, where it drained in the pericardium, causing acute pericardial effusion and cardiac tamponade.

Conclusion. This case is interesting due to major discrepancy between symptoms, clinical findings and the high severity of the acute pathology. Also the case is unique from another point of view: after history, clinical examination, blood tests and imaging tests, we were able to establish the diagnosis and to provide the emergency treatment but we could not identify the primary cause of liver abscess.

Keywords: NT-pro BNP, cardiac tamponade, hepatic abscess

Public Healt

DEVELOPMENT AND PROGRESSION OF REFRACTIVE ERRORS IN MEDICAL STUDENTS

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COORDINATOR: CEANĂ DANIELA-EDITH

Introduction. Refractive errors (RE) represent the main cause of visual impairment and blindness and a significant public health problem, affecting approximately 2 billion people worldwide. In time, it was observed that students, particularly medical students are often affected due to long years of study involving extensive near-work like reading and writing. The purpose of this study is to assess the frequency and progression of RE during university years among students from the University of Medicine and Pharmacy Târgu-Mureș.

Material and methods. We conducted a cross-sectional prospective study, materialized in an anonymous questionnaire, by interrogating 283 sixth-year students (66 males/217 females) with a view to quantify the progression of RE during almost six years of medical studies and identify the risk factors. The definitions for RE were as follows: Myopia $\leq$ -0.5D, Hyperopia $\geq$ +0.5D, Astigmatism $\geq$ 0.5D, as these are the most commonly used in literature.

Results. RE occurred in 173 students (61.1%), while 110(38.9%) were emmetropic. The frequency was not significantly different between females and males (64 and 51.5%, p=0.09). Myopia was observed most frequently, 126 students (44.5%) suffering from it, while 23 (8.1%) had hyperopia and 49 (17.3%) astigmatism. Adult onset RE comprised 51.9% of all the cases, 20.8% being diagnosed 4-6 years ago, 29.4% 1-3 years ago and 1.73% developing them in the past months. Family-history was strongly associated with RE, 111 out of the 173 affected had at least one family member with the same condition (p=0.0001).

Conclusion. RE affect more than 60% of the medical students, the majority acquiring them during university years.

Their evolution is associated with family-history, but there is no significant difference between ametropic and emmetropic students with respect to amount of current close-up activity, sleeping hours or outdoor activities, as suggested by other studies so we consider that looking further into this problem is necessary in order to develop future prevention methods.

Keywords: refractive errors, medical students, public health issue

THE PREVALENCE AND LEVEL OF STRESS AMONG CRACOW UNIVERSITY STUDENTS

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COORDINATOR: TOMASIK TOMASZ

Introduction. Stress, which can be defined as imbalance between our capabilities and the expectations of our surrounding, is an increasing problem in developed countries. Many research studies claim that it may cause the progression of cardio-vascular diseases and emphasize its importance. The aim of our study was to assess the prevalence and the level of stress among university students in Cracow, Poland and to find correlations between stress and some lifestyle behaviours.

Material and methods. 264 students (57% women) with a mean age of 22.2 +/- 1.5 years completed anonymously the Perceived Stress Scale-10 questionnaire. The form consists of 10 questions regarding personal thoughts and feelings during the former month. Students were also asked about their sleeping habits, physical activity, smoking, livelihood, prevalence of chronic diseases and psychological/psychiatric consultations. The statistical analysis was performed using Statistica 12 software (StatSoft Inc.).

Results. According to our study 10.6% of students had high level of stress. The level of stress is statistically higher in the women population ($p=0.04$). Students who reported the occurrence of chronic diseases are also more susceptible to stress ($p=0.0088$). The correlation can be also found in the group of cigarette smokers ($p=0.047$). No significant connections between the level of stress and physical activity or type of studies were found. There was also no significant relationship between prevalence of stress and psychological consultations.

Conclusion. Even though the younger population is considered to be easy-going and careless there are some individuals who present a high level of stress. Due to the fact that stress can be a risk factor for cardio-vascular diseases, we believe that public health awareness about that problem should be raised.

Keywords: stress, PSS-10 questionnaire, students, Cracow

THE INCIDENCE OF OCCUPATIONAL DISEASES IN THE PUBLIC MEDICAL SYSTEM: A 27-YEAR SURVEY

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COORDINATOR: STOIA MIHAELA

Introduction. Often less recognized, occupational risk is an issue relevant to the healthcare sector. Diseases occurring in medical personnel may cause the impaired quality of life and even mortality. Therefore, our objective was to assess the incidence of occupational illness in public hospitals.

Material and methods. An observational study was conducted using quantitative data from the Public Health Directorate of Sibiu records covering all public hospitals from Sibiu County, Romania. The time interval selected was between 1990 and 2016. All medical departments and every occupational category were included. Selection criteria: gender, affiliation, specialization, age and seniority at diagnosis of occupational disease and causative agents. All blind-identity data were statistically analyzed with SPSS. 17.0 at a significance level $p < 0.01$.

Results. The total number reported was 61 cases, with a peak in 2001 at the County Hospital. Individual characteristics were reported: 76.5% women; 39.4 years mean age of the employees; 10.5 years mean seniority of the staff. Occupational hepatitis, tuberculosis and contact dermatitis were prevailing pathologies. The viral infectious etiology was 49.1% and bacillary causative agents 25.4% of all cases. 1 registered case with chronic intoxication. The incidence rate of occupational disease decreases as follows: nurses 27.8% > orderly > resident physicians > physicians 11.4%; Affiliation: Respiratory Disease Hospital > Internal Medicine Clinic > Department of Surgery.

Conclusion. We conclude that our highlighted risk groups should be targeted for focused guidance. Under the time pressure and the decisional stress, the risk increases significantly. Certain factors (such as protective equipment, deficient training, ineffective cooperation, working overtime or night shifts) should be inspected and improved. Effective interventions should be implemented.

Keywords: incidence, occupational, hospital, causative

THE ONSET OF CERVICAL CANCER SCREENING IN WOMEN YOUNGER THAN AGE 25 – IS IT WORTH IT?

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COORDINATOR: IONESCU DORIS MARILENA

Introduction. In the United States, cervical cancer screening is recommended to start at age 21 [1], whereas most European countries suggest that screening begin at age 25 (including Romania) [2]. Moreover, some studies suggest that women aged under 21 years should not be screened regardless of the age of sexual initiation or other risk factors. Despite current guidelines, ongoing medical practice certifies cases of young women under 25 years old who were found to have low-grade squamous intraepithelial lesions (LSIL) or even high-grade squamous intraepithelial lesions (HSIL). These diagnoses reported throughout our study and in the literature raise an issue of controversy.

Material and methods. In this retrospective study, we analyzed, throughout 6 months, the results of Babes-Papanicolaou tests performed as a routine screening on 500 young women aged 18 to 25, sexually active. The results were confirmed by colposcopy. Database research on review articles and meta-analysis on internet searching engines and cervical cytology related books was performed.

Results. There were 24 diagnoses of squamous intraepithelial lesions of which 22 were LSIL and 2 HSIL. Our results are in agreement with the hypothesis which states the necessity of a reevaluation of the guidelines. Researchers have put forward their concerns regarding the increased age at which women will start having Babes-Papanicolaou tests. It was highlighted that the results of Pap smears performed on young women aged 25 to 29 were positive for cervical cancer, when the age of onset rose from 21 to 25 in Europe [3].

Conclusion. Positive test results of women younger than the age of onset of cervical cancer screening enter into a polemic against current guidelines. While there are still many questions left unanswered, there is a need for further research on the utility of cervical cancer screening in younger women and on other risk factors which are believed to contribute to developing cervical cancer alongside HPV infection or individually.

Keywords: cervical cancer, Babes-Papanicolaou, screening

BASIC FIRST AID TRAINING FOR SCOUTS

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COORDINATOR: PAŞCA MARIA DORINA

Introduction. Every day, formal education helps us to be ready for predictable behavior, but the related activity, the extracurricular one, teaches us how to be ready for the unpredictable [1]. The national organisation „Romania's Scouts" completes education received in school and family, enhances self-knowledge, the desire of searching new passions, and helping the community. Nowadays, knowing and applying first aid is essential and has to be cultivated since childhood by different methods. The aim of our study is to evaluate whether the first aid training using a non-formal techniques and instruments has results and efficiency.

Material and methods. We evaluated 51 scouts between the age of 12 and 17, from the Tîrgu Mureș branch of the national organisation „Romania's Scouts". The study started in October and finished in March. The participants were tested before and after the teaching period with a questionnaire containing ten items. During this period, we organized interactive training workshops aiming at ten main subjects. Among the non-formal teaching methods we used brainstorming, role-playing games, demonstration and the aquarium.

Results. We found that in case of minor burns only 24% (12) of scouts knew the right way to approach them and after six months it increased to 94% (48). We also observed an improvement regarding first aid in cases of frostbite from 20% (10) to 76% (39). In October only 25% (13) of scouts knew how to react in case of epistaxis; however, in March the number increased to 82% (42).

Conclusion. Giving prompt appropriate first aid can help to reduce a person's recovery time and make the difference between the patient having a temporary or long term disability. Repeatedly learning and practicing this methods from childhood and adolescence can help future adults to cope with stress, limit situations and act by instinct when someone needs first aid.

Keywords: scouts, first aid, non-formal, education

PERCEIVED STRESS AND WELL-BEING AMONG INTERNATIONAL FIRST YEAR MEDICAL STUDENTS IN ROMANIA

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Introduction. International medical students have an increased risk for mental health difficulties, through exposure to stress (high academic standards, a competitive environment, low peer social support, and language barriers, in addition to some major life changes: temporary migration, socio-cultural differences and homesickness. High-to-very high levels of psychological distress were found in previous studies. Our aim was to assess the levels of perceived stress and reported well-being in a sample of foreign medical first year students enrolled in Romania.

Material and methods. We included 91 participants, mean age 20.9 ± 3.7 years, 52.7% females, 71.4% Europeans, enrolled in the first year at the Faculty of Medicine, English Section, at „Iuliu Haţieganu" University of Medicine and Pharmacy Cluj-Napoca. We used the Perceived Stress Scale (PSS) to measure the level of perceived stress, and the 5-item World Health Organization Well-Being Index (WHO-5) to assess the perceived well-being.

Results. Female students reported a higher level of perceived stress than males, PSS total score 29.05 ± 6.46 vs 24.19 ± 8.19 ($p < 0.01$ - Mann-Whitney U), but there were no statistically significant differences concerning well-being ($p > 0.05$ – Mann-Whitney U). The level of perceived stress and well-being were negatively correlated both in male participants (Spearman's $r_S = -0.662$, $p<0.01$) and female ones (Spearman's $r_S = - 0.594$, $p<0.01$). The strongest negative correlation between perceived stress and well-being was found in non-European participants (Spearman's $r_S = -0.85$, $p<0.01$).

Conclusion. Female participants reported a significantly higher level of perceived stress and a similar level of perceived well-being, compared with males. The negative correlation between perceived stress and well-being was stronger in male participants, compared to females, and strongest in non-Europeans. This suggests that perceived stress may be more detrimental on the well-being of male students and more acculturated ones.

Keywords: medical students, international students, stress, well-being

MEDICAL SIMULATION IN HEALTHCARE: FROM BENCH TO BEDSIDE

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CO-AUTHOR: GĂMAN MIHNEA-ALEXANDRU
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Introduction. Medical simulation is an area that is proving to be increasingly valuable and effective in developing skills and knowledge of medical staff by understanding and putting into practice the concepts learned. We aim to show that simulation applied in medical education is beneficial to both doctors and nurses, and to patients who will benefit from the help of a better trained health practitioner.

Material and methods. We conducted the study by analyzing questionnaires that assessed medical students with minimal knowledge about the medical manoeuvers involved in a six hour practical workshop which involved the use of basic clinical skills simulators (known as task trainers). The workshop consisted of eight basic manoeuvers and each student completed a self-administered form that evaluated the confidence and ability to perform each manoeuver in part on a scale of 0 to 5. The study was conducted by collecting data from a total of 18 practical workshops, attended by 394 students of all years (between 1 and 6).

Results. The practical workshop involving rectal examination, vaginal examination, palpation of the breast, urethral sounding, venous blood collection, fitting an intravenous catheter, mask ventilation and nasogastric intubation significantly improved the practical knowledge of medical students in a relatively short number of hours and prevented accidental errors that could have occurred if the procedures had been practiced on real patients with no prior practical training.

Conclusion. We conclude that the use of healthcare simulation in medical training improves medical students' learning experience and is an useful tool in reducing errors in clinical practice. We propose a further evaluation in clinical practice of a group of 40 students regarding the manoeuvers previously listed by trained medical simulation.

Keywords: simulation, task trainers, workshop

MENTAL ILLNESS RELATED STIGMA AMONG MEDICAL STUDENTS

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Introduction. Stigma represents one of the most important barriers to mental health treatment for individuals diagnosed with psychiatric disorders, and a significant issue for their social functioning. Moreover, data from specialized literature showed that the attitudes of medical professionals generate stigma towards this category of persons. In this respect, the present study tried to offer a review of existing research that has assessed the presence of mental illness related stigma among medical students.

Material and methods. A review of various online medical publications, indexed in PubMed and PubMed Central, was led to identify researches concerning the medical students attitude towards mentally ill patients. Studies that fitted the inclusion criteria were synthesized and evaluated using systematic review methods. We searched articles published since January 1st, 1990. We used a combination of keywords such as „stigma", „mental illness", „medical students" and the „titles" and „abstract" fields were searched.

Results. On PubMed 56 articles published between 1990 and 2016 were found that met the criteria and they were analyzed individually, while on PubMed Central, according to the same methodology 443 papers were found. When we added "Romania" as keyword, only 12 papers were found on PubMed Central, but without any direct reference to our country in the title of the paper.

Conclusion. According to most of the research studies, medical students tend to be more stigmatizing towards mental conditions than students in other non-medical study programs. This is a topic of high interest, but insufficient research has been conducted so far in our country. Based on the results from this stage of our research, in the future our aim will be to raise awareness of this phenomena in our country, since not much has been done so far, in order to overcome the stigmatic barriers and provide a more socially comfortable environment for these patients.

Keywords: stigma, mental illness, social acceptance, patients

CURRENT TRENDS IN SEXUAL BEHAVIOR AMONG THE FEMALE POPULATION IN WESTERN ROMANIA

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Introduction. Sexual education as an intrinsic element of preventive medicine, defines a long-lasting process of achieving knowledge and forming behaviors towards gaining a solid background for sexual health. The aim of the present work was to evaluate the exposure of young women to sexual education with regards to gynecological check-ups, contraception and sexually transmitted diseases (STDs) prevention through personal experiences and based on their differences in academic studies.

Material and methods. A questionnaire-based cross-sectional study was conducted in a random sample of 406 women aged 18-25, enrolled at one of the universities of Timișoara (medical-related studies-52.7%, non-medical related studies-47.3%). The survey took the form of a three-part self-administered questionnaire, containing 21 items about sexual behavior through self-experience.

Results. The mean age of participants was 21.81 ± 2.02. Main age group of first intercourse was 16-18 years (46.6%), with a strong association between the subjects attending medical studies and the number of their sexual partners during the past 12 months ($\chi 2(1) = 4.98$, p=.026, Chi-squared test). There was a statistically significant difference between the age of the first gynecological check-up and the time interval when it was performed ($\chi 2(4) = 146.40$, p<.001, Kruskal-Wallis), with shorter check-up intervals for non-medical students (Z=2.89, p=.04, Mann-Whitney U). All subjects demonstrated a similar lack of sexual knowledge, but only 22.4% responded correctly to all questions about contraception and STDs, regardless of their undergraduate studies (p=.093). Asked whether the present-day society is in need of a sexual education program, 99.5% responses were positive, 62.3% of subjects suggested for it to start at the age of 13.

Conclusion. Among these subjects, poor sexual knowledge and occasional usage of contraception methods were indicators of a high-risk sexual activity, regardless of the field of study. Different approaches to sexual education with regard to the Romanian socio-cultural strata, are necessary to increase awareness from a young age.

Keywords: sexual education, gynecological check-up, contraception, female behavior

CAN THE PARENTS' LEVEL OF KNOWLEDGE INFLUENCE THEIR DECISION TO VACCINATE THEIR CHILDREN?

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Introduction. In recent years the anti-vaccine movements have been greatly publicized, especially on social media. This has resulted in parents questioning the safety of vaccines, to the extent that some parents have even refused to vaccinate children. Vaccinations do not just protect vaccinated children, but also the community from epidemics. Although the outcomes of vaccines are widely successful, the effectiveness of it depends on the public readiness to comply. Therefore the aim is to determine whether the parent's knowledge have an impact on their decision to vaccinate their children and if doctors can influence this for the better.

Material and methods. A survey of 23 questions were compiled of these 16 questions were formulated to test the knowledge of parents related to vaccine preventable diseases and vaccines itself. The English questionnaires were posted on social media. The Romanian questionnaires were completed by parents in Sf. Maria children's hospital, Iasi.

Results. A total of 138 questionnaires were collected. Only 51% of parents were concerned about the possibility of their children contracting a vaccine preventable disease. Despite anti-vaccine movements promoting severe long term side effects, only 14% of parents were concerned about it. The majority of parents were not aware of the complications of vaccines. Less than 40% of parents were aware that the prevalence of 4 childhood diseases are on the rise.

Conclusion. The study showed that parents do not have sufficient information to make the important decision of not vaccinating their children.

The future of vaccines are in doctors hands: therefore, we are responsible to educate parents more on the importance of vaccines.

Keywords: vaccine preventable diseases, anti-vaccine movement, vaccine safety, childhood diseases

IS CAREER CHOICE INVOLVED IN THE DEVELOPMENT OF BURNOUT SYNDROME?

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Introduction. Medical profession is associated with the development of burnout syndrome, a sum of emotional exhaustion (EE), diminished professional and personal achievements (DPPA), and depersonalization (DP). However, the syndrome seems to affect students in medicine, yet it unsure whether career motivation triggers the outburst of the phenomenon and whether it is depicted in undergraduates of other faculties as well [1-4]. Thus, we aimed to evaluate burnout syndrome in students enrolled in medical studies and two unrelated fields.

Material and methods. Maslach Burnout Inventory (MBI) was administered via an online survey to randomly chosen students in medicine (393 respondents, mean age=21.9 years), economics (192 respondents, mean age=20.47 years) and engineering (205 respondents, mean age=21.42 years) to assess the presence of burnout. MBI comprises 25 items evaluating three dimensions: EE (9 items), DPPA (6 items) and DP (10 items). Respondents rated statements on a one (very rare) to five (very frequently) scale.

Results. 34.1% of medical students were at high risk to develop burnout, with the highest and lowest score registered in the 3rd year (121/125 and 30/125 points, respectively). 22.92% of economics students scored highly for burnout risk, with high and low values noted in 1st (110/125 points), and 2nd year of study, respectively (36/125 points). Engineering undergraduates were at high risk of burnout in 32.20% of cases, with students in the 3rd year (121/125 points) being more prone and students in the 2nd year (36/125 points) less prone to burnout.

Conclusion. Our study shows that medical students are at the most risk to develop burnout, yet comparable values were registered in non-medical fields, pointing out that career choice influences the individual response to chronic occupational stress. However, although our research was limited by the personal perception of survey respondents, it raises the question whether educational policies should undergo a change in our country.

Keywords: burnout syndrome, students, chronic stress, career choice

Case Report

AUTOIMMUNE PROGESTERONE DERMATITIS – A CASE REPORT

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COORDINATOR: SENILA SIMONA

Introduction. Autoimmune progesterone dermatitis (APD) is a cutaneous cyclic disease induced by autoimmune response to an elevated level of endogenous progesterone. APD has less than 50 documented cases and has been classified by the National Institute of Health as a rare disorder. We report one case of APD with symptoms' remission after treatment with oral contraceptives.

Case presentation. A 34-year-old woman presented to the Dermatology Department with a 3 month history of pruritic eruption consisting of wide-spread erythematous papules and plaques that recurred every month, starting 5 days before menes and disappeared 1-2 days after completion of menstruation. The lesions were localized on the cheeks, chin, V region of the neck, upper and lower limbs and were well-demarcated, symmetric, uniform in colour and with the size ranging from 5 to 20 mm. The intradermal reaction test (IDR) with progesterone read at 20 minutes was positive. Histopathological examination of the skin biopsy revealed perivascular and diffuse mononuclear cells infiltrates in the dermis and apoptosis of basal cells. These features were consistent with the diagnosis of APD. The patient received combined oral contraceptive (ethinyl estradiol, levonorgestrel) resulting in the improvement of skin lesions.

Conclusion. The clinical presentation of APD encounters signs and symptoms ranging from unspecified dermatitis to anaphylaxis. In most of the cases, patients have been exposed to synthetic progesterone derivatives that are enough antigenic to induce sensitization to endogenous progesterone. Some cases have been determined by the rise in progesterone levels during pregnancy.

Particularities. This case is particularly distinctive both in terms of the patient's history - she had not followed an oral contraceptive treatment nor was she pregnant, conditions that are more frequent to determine APD and also in terms of resources available to diagnose. The cyclic nature of the dermatitis and the IDR response differentiates this condition from similar allergies or systemic disease.

Keywords: autoimmune, progesterone, dermatitis, allergy

A RARE CASE OF PHACE SYNDROME

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Introduction. PHACE Syndrome is a disease represented by the presence of a large hemangioma (covering a large area of skin on the head or neck, greater than 5 cm) associated with several other abnormalities affecting the posterior fossa (brain), eyes, heart, chest wall and greater vessels. It affects girls nine times more often than boys.

Case presentation. Our patient, a one month old baby girl, was brought to the Pediatric Emergency Hospital 'Louis Turcanu' Timisoara with multiple red colored 'tumor like' lesions on the superior lip and mandible area, soft in consistency, with no sign of inflammation, measuring 7/3 cm on the left side and 8/4.5 cm on the right side. The inferior lip was also affected by a ulcerous hemangioma, both on the external and internal surfaces, making the feeding process painful for the child. Performing an echocardiography showed arteria lusoria (aberrant left subclavian artery) and also subependymal cysts. She was diagnosed with PHACE Syndrome. A feeding tube was placed to prevent starvation. She begun systemic therapy with propanolol (2 mg/kg/body/day).

Conclusion. After 5 days, the facial hemangiomas became noticeably paler and the patient was able to feed without the help of the feeding tube. After 6 weeks, the inferior lip ulcerations were healed and she started gaining considerable weight. After 6 months of treatment we obtained successful results, the hemangiomas remised and only a few telangiectasia spots were left in the facial region. The treatment was continued until the age of 1 years and 6 months.

Particularities. The child presented a rare disease that was difficult to identify because of its multiple abnormalities and unspecific symptoms. However, with a careful evaluation it was correctly diagnosed. The patient responded very well to the treatment with beta blockers.

Keywords: PHACE syndrome, malformations, propanolol

CATAMENIAL PNEUMOTHORAX DUE TO THORACIC ENDOMETRIOSIS

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Introduction. Catamenial pneumothorax describes spontaneous, recurring pneumothorax that exclusively affects women during their reproductive years. Catamenial is derived from the Greek word meaning monthly. This pathology suggests a temporal relationship between the menses and the onset of the pneumothorax symptoms. In the following we are going to illustrate a successfully treated case of catamenial pneumothorax.

Case presentation. A 36 year old woman was admitted with shortness of breath and thoracic pain occurring in the first day menses. Her medical history revealed two in vitro fertilization and a spontaneous pneumothorax successfully treated by chest tube two months earlier. Clinical examination showed decreased vesicular murmur and hypersonority on the right thorax. The chest X-ray and CT scan pointed out right pneumothorax without any other lessions. The video-assisted thoracic surgery found white and brown spots on the parietal pleura and small, difusely located diafragmatic holes, especially in the central tendon. No bulla or blebs were found. The patient underwent apical pleurectomy and basal parietal and diafragmatic pleural abrasion. She was discharged two days after surgery. Imunohistochemistry confirmed pleural parietal endometriosis. MRI showed no signs of abdominal endometriosis. She was referred to the gynecologist and received gonadotropin releasing hormone (GnRH) analogue. At a follow-up of 4 months there was no recurrence.

Conclusion. Catamenial pneumothorax is believed to be the most frequent clinical manifestation of thoracic endometriosis. Concomitant pelvic endometriosis is found only at 61% of the diagnosed women. Although the clinical association between the development of pneumothorax and the menses are well characterized the causal mechanisms remain uncertain.

Particularities. All in all, these kind of pathologies are usually successfully treated by surgery along with hormonal treatment.

Keywords: catamenial pneumothorax, women, menses, thoracic endometriosis

A SUSPECTED BONE TUMOR TURNING OUT TO BE A PSEUDOANEURYSM

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COORDINATOR: SIMU IUNIUS PAUL

Introduction. Pseudoaneurysm represents the existence of a breach into the vessel wall, so the blood remains contained by the adventitia or the surrounding tissues. It is associated with a higher risk of rupture than a true aneurysm because of the fragile vascular wall, so it requires specific treatment.

Case presentation. We present the case of a 47 year old male who underwent a left hip replacement 3 years ago. The patient came into our clinic with a painful and throbbing swelling in THE left groin, so a bone tumor was at first suspected. After establishing the biological status of the patient, complex imaging tests were performed (left hip radiography, contrast computer tomography) in order to establish a final diagnosis. Contrast CT scans evidenced an irregular shaped image with hypervascular character, with a diameter of 48/46/37 millimeters. It had similar densitometric values to those of the femoral artery and was located next to the arterial wall, in the left inguinal region, between the adductor thigh muscles. The results were suggestive for a pseudoaneurysm and the ipothesis of a bone tumor was confirmed. Intraoperatively, it was confirmed the origin of the pseudoaneurysm as being in the left internal pudental artery. Drainage of the hematoma and suture of the left internal pudental artery was performed, with a favorable postoperative evolution.

Conclusion. This case was related to surgery and considered to be a complication after hip replacement procedure. Due to a small lesion in the vascular wall, an appropriate environment for developing a pseudoaneurysm was created.

Particularities. Repeated episodes of pain and swelling located in the left inguinal region, raised the suspicion of a bone tumor, despite the throbbing nature of the swelling. Later performed imagistic investigations and intraoperative aspects confirmed the malignant ipothesis and a final diagnosis of internal pudental artery pseudaneurysm was confirmed.

Keywords: pseudoaneurysm, bone tumor, computer tomography, pudental artery

AN INTERESTING CASE OF BILIODIGESTIVE FISTULA AND MECHANICAL ILEUS IN AN ELDERLY WOMAN

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Introduction. Gallstone ileus, a particular cause that leads to the mechanical obstruction of small bowel requires the passage of a gallstone from the gallbladder to the small bowel, usually through a fistula. This pathological condition is not frequent in the adult population, but its incidence increases in the elderly, especially women with chronic cholecystitis history. The passage of gallstones into the duodenal lumen leads to a mechanical small bowel obstruction.

Case presentation. The aim of our paper is to present the case of a 79 y.o. female, who developed an acute surgical abdomen due to a biliodigestive fistula. An elderly female, with a medical history of acute myocardial infarction, atrial fibrillation and insulin dependent diabetes mellitus, presented at admission with nausea, vomiting and bowel obstruction. In order to establish a proper medical care, the patient was investigated with maximum care. Biochemical parameters showed an increased level of total bilirubin and creatinine, associated with impaired liver and kidney function. Investigations were completed by performing abdominal and pelvic ultrasonography and native computer tomography. Two days after admission, the patient's condition worsened and an emergency surgery followed. Cholecystectomy associated with surgical closure of the duodenal perforation and jejunal resection with termino-terminal anastomosis were performed.

Conclusion. The native CT showed pneumobilia into the intrahepatic and principal biliary ducts, thickened gallbladder walls and bilioduodenal fistula. The stomach, duodenum and jejunal loops were dilatated and filled with fluid and gas. Multiple radiopaque stones up to 30 mm diameter were also described. Ten days postoperative the patient presented extreme bradycardia and asistolia, with ineffective CPR. Unfortunately she died despite all medical efforts.

Particularities. This condition has a high mortality (12-20%), as it affects more often elderly people. In our case, the precarious condition at admission, associated with the patient's medical history were adverse prognostic factors, despite the appropriate medical and surgical treatment performed.

Keywords: bilio-digestive, fistula, elderly woman, pneumobilia

NASAL RECONSTRUCTION WITH CHIMERIC FRONTAL AND RETROANGULAR CROSS FLAPS BASED ON SUPRAORBITAL ARTERY

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COORDINATOR: GENCEL EYUPHAN

Introduction. Basal-cell-carcinoma (BCC) is the most common form of malignancy [1] and can be highly disfiguring as it mostly occurs on visible areas such as the neck and face [2], especially rare, aggressive subtypes such as basosquamous (BSC), which are prone to incomplete excision and recurrence [3,4]. When facing recurrent BCC, the main issues are local flap loss and the necessity to find new flap designs based on intact vessels. We describe the chimeric flap, a less-used but suitable form of therapy for complex craniofacial defects [5,6,7].

Case presentation. We report the case of a 60-year-old diabetic woman with recurrent BCC of the nasal tip, dorsum and right nasolabial area, which, by the time of admission to our hospital, had ulcerated despite previous surgery. Histopathological examination of the piece confirmed the BSC subtype. Before reconstruction, hand-held Doppler was performed to evaluate the vascular system. Assessing the extensive tissue loss caused by the excision of the BSC and the patient's comorbidities, we decided upon nasal reconstruction with modified chimeric flap composed of right supratrochlear artery-based frontal flap and left angular artery-based reverse-flow (retroangular) flap, a premiere in the department. Nasal lining and external reconstruction were done without flap loss and the general outcome was favorable, without complications or recurrence two years after the surgery.

Conclusion. Taking into consideration the patient's background, a free flap was not an option due to the high risk of flap loss. Moreover, as Georgescu [8] has proved, compared to perforator flaps, when a free flap is lost, everything is lost. But the loss of a perforator flap involves only the superficial part, whilst it has completed its job covering the denuded anatomical elements while the wound granulates and heals.

Particularities. Complicated case of BSC causing extensive midface tissue loss was solved with a modified chimeric flap using the supraorbital- dorsonasal - angular-based reverse-flow artery systems.

Keywords: chimeric flap, nasal reconstruction, retroangular flap, basosquamous cell carcinoma

MULTIPLE FINGER REPLANTATIONS

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Introduction. Finger-replantation is challenging for micro-surgeons, due to the critical first hours of the fragment's revascularization post-operatively leading to necrosis. Continuous advancements in micro-surgical fields, with better, more precise instruments and many cases presented in the medical literature, allow a better evolution-prediction for replanted fingers.

Case presentation. A 55-year-old factory-worker was admitted via helicopter from a territorial hospital in the Plastic Surgery Departments after accidentally amputating 8 fingers. The operation's purpose was restoring hand functions by gaining pinch/grasp and sensitivity. Preoperatively he received tetanus vaccine, prophylactic antibiotics, analgesics and intravenous fluids. Radiography of hands/fragments were performed in order to plan the intervention. Blood tests revealed anemia and leukocytosis. In the operating room, hand examination revealed a total amputation at the 2nd phalanges of the 2nd-5th finger (left), and a total amputation of the 1st phalanges of the 2nd-5th finger (right). Finger evaluation was made, after wound- washing/debridement, for their pedicles and neurovascular status. Fragments of the 4th - 5th (right) and 4th (left) could not be replanted, because of intense vascular damage. Steps taken: bone-fixation by central osteosynthesis with K-wires, tendons repair, arterial, nerve and finally vein repair using the microscope.

Conclusion. The intervention was initially successful for all fingers. One week post-operative, the index finger (left) developed necrosis due to the crushing mechanism. Stumping was performed. Leeches were needed to compensate the venous drainage for the 3rd finger (right). Passive motion was started with the right fingers 7 days post-operation. The patient was dismissed after 2 weeks and will come regularly for function/evaluation check-ups.

Particularities. Multiple finger amputation with sparing of thumbs requires two teams working parallel in order to replant as many fingers as possible. The patient was transported to the hospital via helicopter with the fragments in good preservation-conditions. Different surgical approaches were necessary due to different levels of amputation for both hands.

Keywords: multiple replantation, coma/trauma, finger, work accident

MISLEADING DIAGNOSIS IN A CASE OF GRANULOMATOSIS WITH POLYANGIITIS IN A PATIENT WITH RIGHT NEPHRECTOMY AND CHRONIC KIDNEY DISEASE

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COORDINATOR: FEIER DIANA SORINA

Introduction. Granulomatosis with polyangiitis formerly known as Wegener granulomatosis is a systemic autoimmune condition which affects 3 out of 100,000 people. It is a form of necrotizing granulomatous vasculitis characterized by damage in the respiratory tract, kidney, skin and nervous system.

Case presentation. A female patient, age 66 known with a right nephrectomy for renal carcinoma, chronic kidney disease, type 2 diabetes mellitus complicated with polyneuropathy and anemia presented with cough, haemoptysis, dyspnea and fatigue. Two months prior to the admission the patient was diagnosed with interstitial pneumonia demonstrated by chest radiography in Baia Mare County Hospital. The first unenhanced thoracic CT-scans showed diffuse parenchymal consolidation with bilateral pleural effusion. Two follow-up CT-scans revealed crazy paving pattern with evolving bilateral focal patchy regions of ground glass opacity and signs of alveolar haemorrhages raising the suspicion of a form of pulmonary vasculitis such as Wegener granulomatosis. Considering the recurrent haemoptysis and renal impairment the suspicion of granulomatosis with polyangiitis was raised and the patient was further tested for cytoplasmic antineutrophil cytoplasmic antibodies (cANCA). A high titer of cANCA was found. A pulmonary biopsy was performed and the histopathological examination of the tissue revealed pulmonary alveolar capillaritis. Treatment for Wegener granulomatosis was initiated with a combination of corticosteroids and cytotoxic agents. Under the treatment the evolution was favorable.

Conclusion. Granulomatosis with polyangiitis should be considered in the differential diagnosis of patients with anemia, cough, haemoptysis and crazy paving pattern on thoracic CT-scan, with a favorable outcome under treatment.

Particularities. Basal interstitial fibrosis is usually the first finding of the disease and in this case was interpreted as an interstitial pneumonia. Multiple nodules of variable size which are randomly distributed in the lungs are usually the most common radiological presentation but in this case the CT appearance was dominated by crazy paving changes and pulmonary haemorrhages.

Keywords: granulomatosis, cANCA, haemoptysis, chronic kidney disease

THERAPEUTIC CHALLENGES IN FISTULISING CROHN`S DISEASE – A CASE REPORT

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Introduction. Crohn`s disease is an inflammatory bowel disease (IBD) that may affect any part of the gastrointestinal tract. Intestinal complications such as bowel obstruction, fistulae, abscesses and bleeding are common. The ultimate medical treatment in Crohn`s disease is biological therapy, which poses particular challenges.

Case presentation. We present the case of a 38 year old male patient who was diagnosed in 2012 with fistulising Crohn`s disease A2L2pB3. The treatment, involving a 'step-up' approach with 5-aminosalicylic acid, corticotherapy and Infliximab was initiated and the patient`s symptoms remitted. In March 2016 Anti-Infliximab antibodies were positive and it was decided to switch to another TNF-alpha inhibitor, Adalimumab. However, the patient had a positive Quantiferon test, needing a 6 month therapy with Izoniazide delaying the switch to Adalimumab. In October 2016 he presented multiple fistulae and an MRI showed multiple perirectal abscesses. Sigmoidostomy and fistulectomy were performed. In February 2017 the patient presented with abdominal pain and diarrhea and C. Difficile toxins A and B were positive. He underwent a 15 day treatment course with Metronidazole and Vancomycin. Finally his treatment with Adalimumab was initiated without incidents, the patient`s symptoms remitted and he was discharged. He is expected for a follow- up next month to monitor the safety and success of therapy.

Conclusion. Infliximab is immunogenic and developing Anti-Infliximab antibodies requires a switch to a less immunogenic agent such as Adalimumab. Before initiating this therapy, screening for tuberculosis is required as well as surgical drainage of any septic complications.

Particularities. We present a case of patient with Crohn`s disease who developed severe complications under treatment with Infliximab. A switch between TNF-alpha inhibitors was necessary but multiple delays occurred, which represented a particular challenge in therapy.

Keywords: Chron`s disease, Infliximab, Adalimumab

THE INTRICATE DIAGNOSTIC AND TREATMENT OF MULTIPLE MYELOMA ASSOCIATED WITH A PLASMACYTOMA - A CASE REPORT

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Introduction. Multiple myeloma (MM) is a debilitating malignancy characterized by a proliferation of malignant plasma cells and a subsequent overabundance of monoclonal Immunoglobulins. The bone marrow contains an increased number of plasma cells, which usually constitute more than 30% of the cellularity. A plasmacytoma is a discrete, solitary mass of neoplastic monoclonal plasma cells in either bone or soft tissue (extramedullary). Although MM remains incurable, several drug therapies are valuable in the treatment of patients with MM, as are autologous stem cell transplantation, radiation and surgical care.

Case presentation. A 60-year old female patient complained of sudden right eye diplopia for which a MRI was performed and an extra-axial homogeneous lesion was found in the clivus. The lesion had invaded the sphenoid sinus and had a compressive effect. At this point a presumptive diagnosis of meningioma was made. The intracranial lesion was biopsied and the histopathology identified cells with plasma cell allure. Immunohistochemistry CD 138 was strongly positive. In the light of the investigations the final diagnosis was Plasmacytoma. The blood count showed normochromic normocytic anemia, leucopenia and thrombocytopenia. Biochemistry showed elevated total proteins, lower levels of Ig-A and Ig-M and high levels of Ig-G. Bone marrow aspiration showed 80-95% pleomorphic plasma cells. At this point the diagnosis of Multiple Myeloma Ig-G stage 2 Salmon Durie was made. When the patient was hospitalized she presented nausea, headache, asthenia and fatigue. Under VCD treatment the marrow content of plasma cells reduced to 2%, total proteins and immunoglobulins were normal and the MRI evidenced the remission of the plasmacytoma.

Conclusion. The treatment proved to be efficient. After multiple relapses the disease is under control, and the general state of the patient is improved.

Particularities. We report here a case of multiple myeloma successfully diagnosed and treated at the Hematology clinic in Cluj-Napoca.

Keywords: plasmacytoma, multiple myeloma, VCD, immunoglobulins

MANAGEMENT OF A POSTTRAUMATIC VENTRICULAR SEPTAL DEFECT FOLLOWING A PENETRATING THORACOABDOMINAL STAB INJURY – A CASE REPORT

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Introduction. The majority of the ventricular septal defects (VSDs) are of congenital origin, but they also may present as a complication of chest trauma.

Case presentation. A 26 year old male was admitted for cardiovascular evaluation 2 weeks after the surgical treatment of a penetrating stab injury of the chest and abdomen, which revealed a diaphragmatic centrotendinous wound, biventricular transfixiant trauma, haemopericard and left massive haemothorax. During the intervention the patient experienced a cardio-respiratory arrest that was responsive to resuscitation manoeuvres. Upon arrival, the clinical exam revealed a left parasternal systolic murmur with irradiation on the entire precordial area. The echocardiography exposed a posttraumatic VSD localized in the apical region of the interventricular septum, with left-right shunt, which was confirmed by the thoracic CT exam. The coronarography and ventriculography showed normal coronary arteries and moderate VSD near the apex. Due to the presence of a febrile syndrome, that responded to empirical antibiotherapy with Vancomicine 2 g/day, associated with inflammatory syndrome and negative haemocultures, the VSD correction was postponed, thus allowing an efficient postsurgery healing. Interventional approach by percutaneous implantation of an Amplatzer device was recommended for VSD correction.

Conclusion. Considering that posttraumatic VSD are rarely found and sometimes have the tendency of enclosing by themselves, closure can often be delayed for a stable haemodynamic patient, taking into consideration the patient symptomatology and the gravity of the shunt.

Particularities. As opposed to congenital VSD, the therapeutic algorithm of a posttraumatic VSD lacks an efficient standardization, due to little information in the literature that describes the natural evolution of posttraumatic VSD. Vigilant post- interventional re-assessment and re-evaluation is vital in patients with cardiac trauma to ensure adequate closure and the absence of residual VSD.

Keywords: posttraumatic, ventricular septal defect, penetrating chest injury

A CHALLENGING CASE OF MULTI-ENDOCRINE TUMOURS DISORDER IN A YOUNG PATIENT

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Introduction. Multiple Endocrine Neoplasia (MEN) syndromes are a group of autosomal dominant disorders, which involve tumors of endocrine and non- endocrine organs. Although, MEN 1 and 2 are the 'classical' forms, recently another member has joined the family, MEN 4, which encompasses several features from the first two.

Case presentation. We report the case of a 31-year-old female patient, who presented to the Endocrinology Department with severe headaches, glycoreglation disturbance, irregular menses and considerable weight gain. Physical examination revealed numerous neurofibromas located on the axillary, lower abdomen and inguinal regions, without 'cafe au lait' spots, as well as red stretch marks, hirsutism, acanthosis nigricans and grade III obesity. The patient was known with microprolactinoma and primary hyperparathyroidism. On admission to our clinic, CT scan displayed multiple pancreatic lesions, which added to the already established diagnoses raised the suspicion of MEN 1. Endoscopic ultrasound confirmed the numerous tumorous masses with a highly suggestive aspect of neuroendocrine tumors (NET). The laboratory tests revealed the non-secretory character of the pancreatic tumors and also excluded the presence of a carcinoid syndrome. Furthermore, the patient was referred to the Surgery Department. Diagnosis of Neurofibromatosis type 1 was rejected, for skin lesions being the only sign of the disease.

Conclusion. After the surgery, the patient had a favorable evolution and histopathological diagnosis pleaded for a neuroendocrine tumor G1. To strengthen the hypothesis of a MEN syndrome, genetic analysis was planned.

Particularities. Our patient presents the characteristic aspects of MEN 1 syndrome and some skin lesions, neurofibromas, specific for MEN2B syndrome. This uncommon combination made us also take into consideration the challenging diagnosis of MEN 4 syndrome, with a different type of mutation on the basis of this disorder.

Keywords: multiple endocrine neoplasia, neurofibromas, neuroendocrine tumors

COMBINED INHERITED AND ACQUIRED FACTORS IN A PATIENT WITH BUDD-CHIARI SYNDROME

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Introduction. Budd-Chiari syndrome (BCS) is a rare disease, defined as the hepatic venous outflow obstruction at any level from the small hepatic veins to inferior vena cava - right atrium junction. A cause can be identified in aproximately 75% of the patients, the most prevalent being mieloproliferative disorders followed by both inherited or acquired hypercoagulable states. Once BCS is diagnosed, long term anticoagulation should be started.

Case presentation. A 34-year-old woman was first admitted to our hospital with a 3 week history of progressive abdominal distension. The transabdominal ultrasound scan revealed ascites, inomogenous liver with left and caudate lobe hypertrophy and absent blood flow in the hepatic veins. The CT confirmed the diagnosis of BCS and anticoagulant treatment was introduced. The etiological workup revealed essential trhombocythemia (JAK2 V617F +) and the prothrombin gene mutation as etiological factors. After a good initial response to anticoagulation and diuretic treatment, the patient presented a new ascites decompensation, a few months after diagnosis. At that time, spontaneous bacterial peritonitis was confirmed. Later in the course of the disease, the patient presented intense abdominal pain with subocclusive syndrome and the CT scan revealed an intramural ileal hematoma secondary to the anticoagulation, that was treated with conservative treatment. Due to high risk of thrombosis, the anticoagulant treatment was not withdrawn.

Conclusion. The identification of one causal factor of BCS should not preclude the search for other associated factors. Although the anticoagulant therapy might be sufficient in controlling the disease, severe complications should be taken into consideration.

Particularities. Essential thrombocythemia is a less prevalent cause of BCS and a combination of several prothrombotic disorders is only found in one third of patients diagnosed with BCS.

Keywords: Budd-Chiari syndrome, thrombocythemia, thrombosis, anticoagulants

UTILITY OF THE OMENTUM IN THE RECONSTRUCTION OF A COMPLEX LOWER LIMB WOUND: A CASE REPORT

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Introduction. Free omental tissue transfer is a versatile reconstructive option. Its recently observed attributes permits new applications with superb results. The omentum was considered to be an inert tissue without much biological significance. Since the beginning of the last century, studies have proven that the omentum is a unique, physiologically dynamic tissue with immense therapeutic potential and exceptional versatility.

Case presentation. A 40 year old woman presented with pain, swelling and erythema of the lower right limb. Ultrasonography revealed permeable veins and inguinal adenopathy. The patient was known and kept under surgical treatment and observation for almost a year, with the diagnosis of posttraumatic wound of the posterior compartment of the lower right limb acquired in 2000 after a carbon monoxide intoxication having associated lymphedema and a hematoma. She went through 3 surgeries and vacuum therapy during this year, all unsuccessful, with recurrent infections and with poor long-term prognosis regarding the future viability of the limb. That is because the surgeries led to a large defect, following the extensive debridement of the necrotized tissue. In addition, the bacteriological examination of the wound was positive for MRSA. Due to all these, we decided for an omental free-tissue transfer. Omentum was transferred and revascularised on the right internal saphenous vein and the right superficial femoral artery lateralized with the left internal saphenous vein. After a month we performed a skin grafting on the top of the omentum. The surgery was successful, with expected good recovery and no complications. A post reconstruction angiotomography was performed, showing good results.

Conclusion. This is a useful procedure, especially when it comes to young patients, where the possible amputation of the limb can interfere with the quality of life.

Particularities. Our aim was to present a case of a complex lower limb wound, treated using the omental free tissue transfer technique and the advantages of this approach.

Keywords: limb, omentum, reconstruction, wound

AN UNCOMMON TYPE OF PRESENTATION OF MULTIPLE MYELOMA

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Introduction. Multiple myeloma remains an incurable hematological malignancy, characterized by abnormal proliferation of a single clone of plasma cells in the bone marrow, resulting in large amounts of serum monoclonal immunoglobulins (M proteins). This represents the first step on the pathway to its various clinical manifestations: anemia, hypercalcemia, renal insufficiency, osteolytic lesions. Thrombocytopenia is present in 5% of patients with multiple myeloma.

Case presentation. A 76-year-old male patient, with a history of arterial hypertension, ischemic heart disease, atrial fibrillation (anticoagulated initially with acenocumarol, substituted afterwards with dabigatran due to multiple hemorrhagic events), mitral valve prolapse with severe regurgitation, multiple episodes of pneumonia, chronic atrophic gastritis, presented with hemoptysis, fever, and asthenia. Laboratory tests revealed mild anemia, thrombocytopenia, hyposideremia, hypoproteinemia, normal erythrocyte sedimentation rate, normal serum creatinine, BUN and calcemia. Computed tomography revealed areas of pulmonary microhemorrhage in both pulmonary fields, interpreted as a major adverse event of anticoagulant treatment in conjunction with thrombocytopenia. Considering anemia and thrombocytopenia, a suspicion of myelodisplastic syndrome was raised, and a bone marrow examination was performed. It revealed 8-10% atypical plasmocytes infiltrates suggestive for multiple myeloma. This diagnosis was also sustained by decrease of serum G imunglobulin and urine and serum protein electrophoresis with immunofixation detecting overproduction of light kappa chains. No bone lesions were identified by the skeletal survey. The final diagnosis was Multiple Myeloma with light kappa chains and treatment with melphalan and methylprednisolone was initiated. The evolution was favorable with remission of asthenia and anemia, but persistence of mild thrombocytopenia.

Conclusion. Multiple myeloma is worthy of consideration in patients with bicytopenia even if its typical features are lacking.

Particularities. As special features of this case, we could highlight the paucity of symptoms, negative skeletal survey, normal calcemia and normal kidney function.

Keywords: multiple myeloma, anemia, thrombocytopenia

5 DECADES WITH A 3 CHAMBER HEART: A RARE CASE OF DOUBLE INLET SINGLE VENTRICLE

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COORDINATOR: LIONTE CATALINA

Introduction. A double inlet single ventricle is a rare congenital heart disease, of complex anatomy, comprising 1% of all congenital heart diseases. Venous and arterial blood is inevitably mixed in the single ventricle that pumps blood to the body and lungs leading to various degrees of cyanosis.

Case presentation. We present an unusual case of a 47 year-old female, known with a single ventricle since her hospitalization for an episode of subacute endocarditis in 2010. On inspection, she presented erythrocyanosis of the face, cyanosis of the extremities and nail clubbing. Palpable systolic thrill was felt over the pulmonary area. On auscultation, systolic murmur grade VI/VI was audible over the pulmonary valve and systolic murmur IV/VI over the apex. Echocardiography revealed double inlet single hypertrophic ventricle, of left type, two atria that drain into it via a left and right AV valve, transposition of the great arteries, severe pulmonary artery stenosis and left AV valve insufficiency grade II-III, after partial correction with prosthetic ring Sorin 28 and artficial chordae tendinae. She developed heart failure NYHA III and secondary polycythemia due to chronic hypoxia.

Conclusion. Our patient was medically treated for heart failure and polycythemia with diuretics, ARBs, antiarrhythmics, oral anticoagulants and phlebotomy when hematocrit is over 55%. A healthy lifestyle was also indicated.

Particularities. The single ventricle is accompanied by pulmonary stenosis, which acts as a protective barrier between the pulmonary vasculature and the high pressures of the solitary ventricle that would lead in very severe pulmonary hypertension not compatible with life. Thus, the pulmonary stenosis had a favorable effect for our patient and contributed to her astonishing long-term survival and good quality of life without surgical treatment.

Keywords: single ventricle, pulmonary stenosis, polycytemia, cyanosis

PSORIATIC ARTHRITIS 'SINE PSORIASIS' ASSOCIATED WITH HYPERURICEMIA - A CASE REPORT

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COORDINATOR: TĂMAŞ MARIA MAGDALENA

Introduction. We report the case of a 46-year-old male patient who presented at the Rheumatology Department complaining of acute pain of the third finger joints of the left hand, accompanied by erythema, swelling and decreased mobility.

Case presentation. The disease started in 2005 with asymmetrical arthralgia affecting both small and large joints, but it was only 2014 when the patient presented at the hospital with bilateral 'genu flexum', arthritis of the wrists, squeeze sign positive and dactylitis. Biological tests revealed an important inflammatory syndrome with a negative rheumatoid factor, anti-cyclic citrullinated peptide antibodies and antinuclear antibodies. Radiological imaging showed bilateral secondary osteoarthritis of the knees and advanced arthritis with ankylosis of the radiocarpal joints. Therefore, a seronegative oligoarthritis (peripheral spondyloarthritis) was suspected. Treatment with Methotrexate (MTX) was initiated with clinical and biological good response, but after one year the patient presented important side effects such as chronic kidney disease KDOQI I. Laboratory tests revealed hyperuricemia of 9.4 mg/dl and ultrasound (US) examination showed the 'double- contour' sign at the hyaline cartilage of the knee, interpreted as asymptomatic hyperuricemia and a low purine diet was indicated. MTX was replaced by Sulfasalazine. On presentation the patient had a 'sausage-like-digit'. Synovitis of the metacarpophalangeal, proximal interphalangeal joints and tenosynovitis of the flexor tendon of the 3rd left finger were identified on US. Laboratory examinations revealed inflammatory syndrome and persistent hyperuricemia.

Conclusion. The episode was interpreted as dactylitis in the context of a peripheral spondyloarthritis, resolved with NSAIDs. The possibility of a gout attack was considered, therefore Colchicine was administered.

Particularities. The particularity of the case stands in the late presentation which led to severe osteoarthritis. The clinical findings suggest a psoriatic arthritis 'sine psoriasis' which appears in 10-15% of the cases of psoriatic arthritis, when rheumatological manifestations precede cutaneous lesions. Moreover, the acute onset of dactylitis may raise the possibility of a gout attack.

Keywords: psoriatic arthritis 'sine psoriasis', late presentation, gout attack

A RARE CASE OF LIVER CYSTADENOCARCINOMA – A CASE REPORT

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COORDINATOR: CHIRA ROMEO IOAN

Introduction. Hepatic cystadenocarcinomas are rare biliary cystic neoplasms. The presence or absence of mesenchymal ovarian-like stroma differentiates the two histological types of this pathology. We present a case of liver cystadenocarcinoma with mesenchymal ovarian-like stroma, most commonly found in the sixth decade of age, in female patients. It is associated with a better prognosis than the non- mesenchymal type.

Case presentation. A 67 year old female patient complained of vague upper abdominal pain. Physical examination revealed no other signs and symptoms apart from tenderness in right hypochondriac and epigastric regions. On the 29th of March 2016 she presented at Medicala I Hospital for investigations. She had multiple comorbidities: stage III arterial hypertension, hypertensive cardiomyopathy, Ist stage obesity, hypercholesterolemia, colecistectomy, hysterectomy and bilateral adnexectomy. The abdominal ultrasound showed a complex septaded cystic mass (14.5/13/12.5 cm) in the left liver lobe. This finding led to an abdominal computer tomography scan, that confirmed the lesion with different densities within it and the consequent compression of the main biliary duct. Blood tests also revealed cholestasis, with high levels of alkaline phosphatase and gamma-glutamyl transpeptidase. These investigations led to the suspicion of liver cystadenoma or cystadenocarcinoma. On the 21st of June 2016 a left lateral liver sectionectomy (segments II, III, ½ IV) was performed. Histopathological analysis led to the diagnosis of liver mucinous cystadenocarcinoma.

Conclusion. The post-operation evolution was favorable with no adenopathies or secondary tumours revealed by the thoracic and abdominal CT scan performed on the 31st of October 2016. Blood tests were between normal limits (cholestasis absent).

Particularities. We report a rare case of liver cystadenocarcinoma. The patient has shown no signs and symptoms of malignancy. Also CA19-9 and CEA blood levels were within normal limits at all times.

Keywords: liver cystadenocarcinoma, liver sectionectomy, biliary cystic neoplasms

VITILIGO ASSOCIATED WITH GASTRIC ADENOCARCINOMA SECONDARY TO PERNICIOUS ANEMIA

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COORDINATOR: POROJAN DANIELA

Introduction. Vitiligo is a progressive depigmenting disorder of the skin, affecting 0.5-1% of the population. The etiopathogenesis of vitiligo is not fully understood, but several studies suggested that autoimmunity might play an important role. Multiple studies reported association between vitiligo and other autoimmune diseases.

Case presentation. We present the case of a 70 year old female patient, with a history of vitiligo, diabetes mellitus type 1 and cardiovascular comorbidities. She was admitted to the hospital for warning signs and symptoms concerning possible occult malignancy. Physical examination also found skin lesions suggestive of vitiligo. Laboratory studies showed macrocytic anemia, elevated lactate dehydrogenase, decreased vitamin B12, mild unconjugated hyperbilirubinemia and positive gastric parietal cell auto-antibodies suggestive of pernicious anemia. Upper digestive endoscopy with biopsy and histopathological examination revealed atrophic body gastritis and adenocarcinoma. Wood-lamp examination of the achromic skin lesions confirmed the diagnosis of vitiligo.

Conclusion. The patient refused the recommended surgical treatment and underwent palliative care. Vitamin B12 administration was contraindicated. She also refused local treatment of vitiligo.

Particularities. The presented case supports the role of autoimmunity in pathogenesis of vitiligo, by the association between vitiligo and other two autoimmune disorders diabetes mellitus type 1 and pernicious anemia, the latter being an important risk factor for gastric cancer.

Keywords: vitiligo, pernicious anemia, gastric adenocarcinoma, autoimmunity

PARTICULAR PROFILE OF ANTHRACYCLINE TOXICITY INTERFERING WITH ATRA BIOAVAILABILITY IN AN ACUTE PROMYELOCYTIC LEUKEMIA PATIENT: A CASE REPORT

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CO-AUTHOR: ȚÎBÎRNĂ-CIOLAN MĂLINA
COORDINATOR: ANTOHE ION

Introduction. Acute promyelocytic leukemia (APL) is a distinct type of acute myeloid leukemia (AML) characterized by its invariable association with chromosomal translocations involving the *Retinoid Acid Receptor α (RARA)* gene on chromosome 17 and, more frequently, the *Promyelocytic Leukemia (PML)* gene on chromosome 15, leading to a chimeric PML-RARA fusion product, responsible for differentiation arrest at the promyelocyte stage. APL is unique among AML subtypes due to its quasi constant association with severe disseminated intravascular coagulation (DIC) and responsiveness to All-*trans retinoic acid (ATRA)*, responsible for a cure rate over 90% in combination with anthracycline therapy.

Case presentation. A 36 year-old female patient was admitted with hemorrhagic syndrome, pancytopenia and acute overt DIC. Bone marrow examination indicated infiltration with hypergranular promyelocytes with APL immunophenotype. Molecular tests exposed the presence of the PML-RARA fusion transcript. Thus, APL diagnosis was established and anthracycline and ATRA-based induction therapy was started, alongside DIC-directed supportive therapy. We here describe the particular toxicity profile of idarubicine, that induced severe prolonged myelosuppression (28 days) and gastrointestinal mucositis, thus altering bioavailability of oral ATRA and inducing DIC recurrence and life-threatening upper gastrointestinal bleeding. Complete remission and negative minimal residual disease were documented by day 28 following induction. The patient remains disease-free at 24 months following diagnosis.

Conclusion. In the absence of the intravenous ATRA formulation, vigorous supportive therapy and future abstinence from Idarubicine therapy are required in order to ensure patient survival.

Particularities. We here report the case of an APL patient in whom an uncommon profile of Idarubicine toxicity altered ATRA bioavailability and its ability to control APL-associated DIC.

Keywords: acute promyelocytic leukemia, ATRA, mucositis, disseminated intravascular coagulation

PURE LAPAROSCOPIC FISTULOJEJUNOSTOMY FOR THE MANAGEMENT OF EXTERNAL PANCREATIC FISTULA. A CASE REPORT

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CO-AUTHOR: CÎMPEAN GEORGE-CLAUDIU
COORDINATORS: POPA CĂLIN, ZAHARIE FLORIN

Introduction. One of the complications after surgical treatment in the cases of severe acute pancreatitis is external pancreatic fistula (EPF). While open Roux-en-Y fistulojejunostomy is the usual surgical treatment for EPF, the laparoscopic approach is rare. However, as management of EPF we propose a pure laparoscopic fistulojejunostomy.

Case presentation. We present a case of an obese 54 year-old female patient with severe acute biliary pancreatitis, Balthazar E, severity score 10/10. After one month of conservative and endoscopic management, the patient underwent a laparoscopic intervention for a complicated pseudocyst including cholecystectomy, sequestrectomy and multiple drainage. However, an EPF developed with a daily drainage fluid of 250-300 ml. A mature scar tract formed around the percutaneous drain and after a period of 6 months a laparoscopic Roux en Y fistulojejunostomy was performed. The patient's condition improved and she was discharged 14 days later. Post-operative evaluation showed no complications after one year.

Conclusion. Pure laparoscopic fistulojejunostomy can be used as a surgical treatment for EPF.

Particularities. We put forward a case of EPF, which was managed completely laparoscopically, performing a Roux-en-Y fistulojejunostomy.

Keywords: laparoscopic fistulojejunostomy, acute pancreatitis, external pancreatic fistula

DIFFICULT GLYCEMIC CONTROL UNDER PASIREOTIDE. A CASE REPORT

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COORDINATOR: PÎNZARIU OANA

Introduction. Pasireotide is a multi-receptor-targeted somatostatin analogue used for the treatment of Cushing's disease (CD). It has a safety profile similar to other somatostatin analogues with the exception of hyperglycemia. The current understanding of response to Pasireotide in CD and the management of Diabetes Mellitus during Pasireotide treatment are still controversial.

Case presentation. We present the case of a 58 year-old female patient diagnosed in 2006 with pituitary microadenoma who developed bilateral adrenal hyperplasia and Cushing's Disease. The patient underwent radiotherapy and was placed on Ketoconazole. Due to the poor control of the disease (urinary free cortisol 263 μg/24h), hormonal therapy with Pasireotide was initiated in October 2015, which normalized the cortisol levels in only 2 months (urinary free cortisol 122.2 μg/24h in December 2015). In June 2014, the patient was diagnosed with secondary Diabetes Mellitus, starting the treatment with Metformin. The poor glycemic control (HbA1c 7.6%) corroborated with the endocrine treatment changes led to the necessity of initiating insulin therapy with Lantus 48 I.U./day and Humalog R 30 I.U./day. After 6 months, due to the worsening of the glycemic control (HbA1c 9.48%) the doses of Lantus were increased to 54 I.U./day. In September 2016, HbA1c was 8.78% and the level of cortisol in normal limits.

Conclusion. We followed the evolution of the cortisol and glycemic control under Pasireotide. Diabetes is difficult to manage under this treatment, needing constant adjustments. On the other hand, Pasireotide is quick and efficient in Cushing's Disease.

Particularities. Although the decision to change to insulin therapy was made when Pasireotide treatment was initiated, Hb A1c rose by 1.82% in one year, also irrespective of the further adjustments made.

Keywords: Pasireotide, Cushing's Disease, diabetes mellitus

THE MANAGEMENT OF ATYPICAL BRUGADA SYNDROME – A CHALLENGE

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COORDINATOR: GUŞETU GABRIEL

Introduction. Brugada Syndrome is a genetic disorder, characterized by a mutation in a myocyte cell's membrane sodium channel (SCN5A) gene, that increases an individual's risk for ventricular arrhythmias and sudden cardiac death. It was first described by the Brugada brothers in 1992. The electrocardiogram pattern is atypical, showing ST segment elevation in the right precordial leads, unrelated to myocardial ischemia, electrolyte imbalance or structural heart disease.

Case presentation. A 21-year-old woman, complaining of epygastralgia, pyrosis / heartburn, chest pain and dyspnea lasting for two weeks was referred by a general physician for an upper digestive tract endoscopy. The screening ECG recorded before the procedure revealed a minor right bundle branch block and ST- segment elevation in right precordial leads (V1-V3). Because of associated personal history of syncope (at age 14 and 17) she was transferred to the cardiology ward. An electrophysiology study was performed, and even if the provocative test with iv flecainide was negative, a sustained fast ventricular tachycardia was induced and electrical cardioversion was necessary to stop it. Even if the Brugada Syndrome criteria were not fully met, an internal cardioverter defibrillator was implanted.

Conclusion. When the high risk of sudden cardiac arrest is encountered, the implantation of an internal cardioverter defibrillator is considered to be a safe strategy, as long as the patient's consent is given, overcoming the risks of procedure's complications.

Particularities. Despite having history of syncope, a Brugada ECG pattern and positive programmed ventricular stimulation, the provocative test was negative.

Keywords: syncope, Brugada syndrome, internal cardioverter defibrillator, flecainide

CEREBRAL VENOUS THROMBOSIS IN THE PUERPERIUM

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Introduction. Cerebrovascular complications may occur in the spectrum of pregnancy and puerperium due to the hypercoagulable state, intracranial hypertension and pelvic sepsis. As a main characteristic, postpartum cerebral venous thrombosis may develop from latent pelvic or femoral thrombosis with the migration of blood clots in the cerebral area.

Case presentation. A twenty three year-old woman, presented to the emergency department on postpartum day six having experienced headaches, paresthesias and acute motor deficits in the right limbs. Laboratory tests highlighted a microcytic hypochromic anemia (secondary to pregnancy blood loss), thrombocytosis and inflammatory syndrome-positive CRP, high ESR rate (40 mm/h), hyperfibrinogenemia (710 mg/dl). The evaluation of vaginal discharge indicated positive blood cultures with Escherichia coli and Klebsiella spp. Clinical examination revealed left lower extremity edema for which we pursued a Doppler ultrasound test and a CT scan with contrast agent, both suggesting multiple venous thrombosis. Thus, a postpartum infection related to the genital area led to a series of complications such as venous stroke associated with cerebral hemorrhage, profound venous thrombosis and pulmonary embolism. Cerebral MRI scan showing intracranial hematoma concluded the diagnosis of hemorrhagic parieto-occipital stroke affecting the subarachnoid area and intraparenchymal hematoma post arteriovenous malformation. OAC using low molecular weight heparin and antimicrobial treatment subsequent to neuromodulation therapy registered a positive evolution. Thrombophilic status evaluation applies in such cases, but given the peripartum coagulation changes and the OAC treatment it has been withdrawn.

Conclusion. Cerebral venous thrombosis is a potentially life threatening condition, with high predisposition for women presenting neurological symptoms during pregnancy and puerperium.

Particularities. Both evolution and treatment were an outstanding challenge given the high risk of bleeding in contrast with the OAC treatment- specific for thrombotic complications.

Keywords: puerperium, pelvic sepsis, cerebral thrombosis, OAC treatment

PARANEOPLASIC DERMATOMYOSITIS IN A PATIENT WITH PROSTATIC ADENOCARCINOMA

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COORDINATOR: BRINZA ALICE

Introduction. Dermatomyositis is an idiopathic inflammatory myopathy with cutaneous findings. It is a systemic disorder that frequently affects the skin, muscle and, sometimes, the esophagus, the lungs or the heart. A particular form of dermatomyositis is paraneoplasic dermatomyositis.

Case presentation. We present the case of a 64 year old male, who was admitted to Colentina Hospital, Department of Dermatology because of a rash, myalgia and general systemic disturbances. The clinical exam revealed reduced abduction movements in the scapulo-humeral joint, pain in the coxo-femoral joint, eruption along the eyelid margins, with periorbital edema and violaceous papules spread all over his nose and forehead, V-neck configuration poikiloderma, Gottron's sign, Gottron's papules, changes in the nailfolds of the fingers, with 'splinter' hemorrhages. From the personal pathological history we mention endoscopic resection of prostate, for adenocarcinoma and high blood pressure. The lab tests showed higher levels of muscular enzymes: CK=8964 IU/L, GOT=610 IU/L, LDH=1228 IU/L and markers of inflammation: ESR=27 mm/1h, fibrinogen=515 mg/dl. The presumptive diagnosis was paraneoplasic dermatomyositis. A muscular biopsy was made, which revealed perifascicular necrosis, with perivascular inflammatory infiltrate in the perimysium. The specific anti-bodies (anti-Jo1, anti-Mi, ANA) were negative and PSA was normal. The abdominal CT revealed an extensive tumor with malignancy characters, abdomino- pelvine lymphadenopathy and an osteosclerotic lesion on L4. It was also referred to the oncologist for reevaluation and a proper cure. The treatment consisted of corticoids, immunomodulators and antihypertensive drugs. After 10 days of medication, the muscular enzymes had approached their normal levels and the symptoms had diminished.

Conclusion. Specific anti-bodies are frequently negative in paraneoplasic dermatomyosits. The patient should always be monitored at least 1 year after diagnosis.

Particularities. Most frequently associated tumors with this disease are ovarian and gastric tumors. Prostatic adenocarcinoma is rarely associated with dermatomyositis.

Keywords: paraneoplasic dermatomyositis, prostatic adenocarcinoma, periorbital edema, violaceous papules

RECTOSIGMOIDIAN CANCER IN A 37 YEAR OLD MALE

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COORDINATOR: CACOVEAN DAN

Introduction. Colorectal cancer is the most common type of gastrointestinal cancer. The etiology encompassing genetic factors, environmental exposures and inflammatory conditions. The radical treatment is represented by surgery. One of the most frequent procedures is Hartmann's, which involves resection of the rectosigmoid colon with the creation of a colostomy.

Case presentation. A 37 year old male, was first admitted in August 2016 in the Gastroenterology Department of the Fundeni Clinical Institute, for inferior digestive hemorrhage, diffuse abdominal pain and intermittent diarrhea for about a month. Patient's personal history was insignificant and from his family medical history we retained his mother's breast cancer. A colonoscopy was performed and revealed a rectal tumor, located at about 20 cm from rectal orifice. A biopsy was made. The patient was transferred to the Surgery Department of the same hospital, where a colostomy was performed, followed by 15 radiotherapy sessions. The patient was readmitted in early February for tumor excision. Clinical exam showed pale teguments and mucosa. Blood test revealed elevated hepatic enzymes and lower albumin levels, mild anemia (Hb=9.4 mg/dl) and coagulation deficiency. A CT-scan was made to characterize the tumor and to explore the rest of the abdominal cavity. The exam showed a parietal thickening of the rectal and recto-sigmoidian junction wall and a suggestive aspect of tumoral infiltration of mesorectal fascia and perirectal fat. The scan also showed a bigger liver, with multiple nodular lesions, with suggestive aspect of metastasis. During the surgery a polyp was found, with benign macroscopic aspect. A Hartmann's procedure and an atypical hepatectomy of segments VI, VII and VIII, ultrasound controlled was performed.

Conclusion. The histopathological exam revealed hepatic metastasis and two different cancers: an invasive tumor and a polypoid adenocarcinoma. The prognosis is reserved.

Particularities: The case presented two rectal cancers in a very young patient, without family history of colorectal carcinomas.

Keywords: inferior digestive hemorrhage, polyp, hepatic metastasis

CLINICAL MANIFESTATIONS IN DiGEORGE SYNDROME

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COORDINATOR: LAZEA CECILIA

Introduction. DiGeorge syndrome, also known as 22q11.2 deletion syndrome, is a genetic disorder resulting in medical complications, cognitive impairment, and brain morphologic changes. It is also associated with truncus arteriosus and tetralogy of Fallot. This syndrome is characterized by incomplete penetrance and therefore there is a marked variability in clinical expression between the different patients.

Case presentation. We present two female patients with DiGeorge syndrome, with different clinical manifestations. Patient 1 was diagnosed with tetralogy of Fallot, pulmonary valve atresia, aorto-pulmonary collaterals and patent ductus arteriosus, immediately after birth. At the age of one month she was hospitalized for cyanosis, failure to thrive and seizures. The level of calcium and PTH (Parathyroid hormone) were normal. She was treated with Phenobarbital for one year and she has not repeated the seizures, so treatment was ceased. The patient also presented dysmorphic features, incomplete syndactyly of the feet fingers, spleen anomaly, hiatal hernia. FISH (Fluorescence in situ hybridization) test revealed 22q11.2 deletion. Patient associated recurrent respiratory and digestive infections and moderate intellectual and neuro-motor delay.

Patient 2 was diagnosed with interrupted aortic arch in the last trimester of pregnancy. After birth, the patient presented dysmorphic features, interrupted aortic arch, ventricular septal defect. She was operated immediately after the birth, with very good evolution. FISH test revealed 22q11.2 deletion. The level of PTH was very low, so she was also diagnosed with hypoparathyroidism. At the age of 4 months, during a respiratory infection she presented hypocalcemia and seizures, despite the regular treatment with calcium. This patient also associated recurrent respiratory infections and mild intellectual and neuro-motor delay.

Conclusion. DiGeorge syndrome represents an important cause of severe cardiac malformations and hypoparathyroidism.

Particularities. The severity of hypocalcemia and hypoparathyroidism are variable in the DiGeorge syndrome.

Keywords: tetralogy of Fallot, PTH, seizures, FISH

A RARE ASSOCIATION BETWEEN THYROID ECTOPY WITH PRIMARY CONGENITAL HYPOTHYROIDISM, ECTOPIC THYMUS AND GROWTH HORMONE NEUROSECRETORY DYSFUNCTION

AUTHOR: JURJ IULIAN
COORDINATOR: GEORGESCU CARMEN

Introduction. Growth hormone (GH) neurosecretory dysfunction is a rare growth anomaly which involves a disturbance in the 24-hour GH secretion pattern, causing growth delay. We report a case of growth failure in a young girl suffering from congenital hypothyroidism and GH neurosecretory dysfunction.

Case presentation. A 5-year old girl with short stature (-2.68 SD) presented last year in our endocrinology service for investigation. She has a history of ectopic thymus and congenital hypothyroidism caused by sublingual ectopic thyroid, being under levothyroxine replacement therapy since the age of 4. The main non-endocrine causes of growth failure, such as constitutional short stature, genetic syndromes of short stature or malnutrition were ruled out. Also, Turner Syndrome and other chronic illnesses were excluded. A disharmonic dwarfism and bilateral hip dysplasia were found, without other specific signs of hypothyroidism. The bone X-ray showed a bone delay of 3 years and 9 months. Laboratory findings suggested a proper substitution of thyroid function, excluding an inefficiently treated hypothyroidism as a potential cause of growth delay. A repeatedly decreased level of serum Insulin-like Growth Factor-1 (IGF-1) (49.8 ng/ml; 43.7 ng/ml), indicating a GH deficiency was also found. Finally, the criteria for GH neurosecretory dysfunction were met, given the hypoplastic aspect of the pituitary, the normal response of GH after the Clonidine stimulation test (GH at 60 minutes=16 ng/dl) and the inadequate 24-hour GH secretion profile (2.94 ng/dl and a GH peak of 9.99 ng/ml). In addition, the bioinactive GH deficiency was excluded after performing the therapeutic GH test.

Conclusion. This case underlines the importance of hormonal investigations of the hypothalamo-pituitary-somatotropic axis in hypothyroid children with persistent growth failure, despite proper substitution treatment.

Particularities. We describe a case of complex endocrine etiology of a growth delay in a 5-year old girl with multiple congenital anomalies.

Keywords: ectopic thyroid, growth hormone deficiency, growth failure, congenital hypothyroidism

CHIARI NETWORK- AN INCIDENTAL DIAGNOSIS

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COORDINATOR: SIRBU OANA

Introduction. Chairi network is a mobile net-like structure seldom visible in the right atrium close to the opening of the inferior vena cava which is found in 2-3% of hearts during autopsy and incidentally during TTE in less than 0.6% patients. Usually, this is of no clinical significance but it may cause diagnostic difficulties, hence a differential diagnosis with myxoma is essential.

Case presentation. We describe a case of a 68 year old woman who presented to the hospital with dyspnea at effort along with productive cough, sweating and epigastric pain. This presentation was preceded by a diagnosis of multiple sclerosis at the age of 16, multiple cerebral infarctions, global cerebral atrophy, meningioma and class III NYHA chronic cardiac insufficiency. The clinical picture called for further investigations which included an X-ray that raised suspicion of pneumonia. Baseline blood analysis presented with an important increase in BNP, troponin and leukocytosis with neutrophilia. Transthoracic echo showed aortic atherosclerosis and a hyperechoic image of a floating, highly mobile net like structure that suggested an atrial myxoma. To confirm the diagnosis, TEE was performed and the previously suggested myxoma was overruled by a diagnosis of Chiari network.

Conclusion. Treatment for myxoma involves surgery and thus a successful differential diagnosis prevented any major surgical intervention. In this case, the patient was left under observation as the Chiari network did not present with any complications. No association with Patent Foramen Ovale or Atrial Septal Aneurysm were noted which are common associations.

Particularities. We report this case as an incidental diagnosis of a rare condition that can cause diagnostic confusion of right atrial pathologies and thromboembolism by blocking the outflow. Furthermore, to emphasize its protective role, it may act as a filter in the inferior vena cava to protect from pulmonary embolism.

Keywords: Chiari network, myxoma, differential diagnosis, diagnostic confusion

TRANSPEDICULAR PERCUTANEUS VERTEBROPLASTY IN SPINE HEMANGIOMA – A CASE REPORT

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CO-AUTHORS: VÎLCAN ANDREEA, PINTEA IOANA ALEXANDRA
COORDINATORS: BĂȚAGĂ TIBERIU, MÁRTON DÉNES

Introduction. Vertebral hemangioma is a benign tumor of mesenchymal origin, resulting from an abnormal proliferation of endothelial tissue, commonly located in the thoracic or lumbar vertebral body. This kind of hemangioma is frequently generalized, meaning that more than one vertebral body is affected. The majority of vertebral hemangioma are asymptomatic, thus the long period of time until the diagnosis is established, from this reason the treatment is not compulsory.

Case presentation. We present a case of a 50 year old female patient, known with osteoporosis and heart conditions (HBP), complaining about lumbar pain with irradiance in the inferior abdomen. Specialized investigations were performed, ruling out the gynecological and urological etiology of the current symptoms. Neurosurgical examination and MRI revealed vertebral injury described as hemangioma. The MRI highlights a vertebral hemangioma L4, solitary and macronodular with 2.85 x 3.2 x 1.7 cm diameter and another one, smaller, at L2. Surgical treatment was applied, performing left Transpedicular Percutaneus Vertebroplasty with PMMA cement. The postoperative evolution was immediately favorable.

Conclusion. Due to a vertebral hemangioma's slow progression rate, the symptoms occur when the tumor starts to affect the bone structures. When the bone destruction reaches a specific level, the resistance of the affected vertebral body decreases, resulting microfractures and then subsidence, which determines pain. By injection of PMMA cement, we obtained a static stabilization and also thermocoagulation of the neoformed vessels. The endocrinological treatment of osteoporosis is mandatory, especially in eccentric vertebral hemangiomas, which lead to scoliosis because of unilateral subsidence of the vertebral body.

Particularities. The particularity of this case consists of the variety of investigations that were made until the diagnosis was established.

Keywords: hemangioma, lumbarhemangioma, PMMA, spinal tumor

THE CONTRIBUTION OF CA 125 IN THE DIAGNOSIS OF A HEPATOCELLULAR CARCINOMA

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Introduction. Hepatocellular carcinoma (HCC) is the most common type of liver cancer. Treatment options for HCC and prognosis are dependent on many factors but especially on tumor size, staging and extent of liver injury. This tumor carries a poor overall prognosis.

Case presentation. A 58 year old man was admitted to the Emergency Unit with jaundice and right upper quadrant abdominal pain, facts that were confirmed after clinical exam. Liver function test depicted an alanine transaminase of 67 IU/L; aspartate transaminase of 59 IU/L and a cholestatic syndrome with a bilirubin of 17 mg/dl with conjugated bilirubin of 6.3 mg/dl; alkaline phosphatase of 256 IU/L; gamma-glutamyl transpeptidase of 389 IU/L. The serum tumor markers depicted normal values of carcinoembryonic antigen (CEA) and cancer antigen 19-9 (CA 19-9), an alpha fetoprotein (AFP) of 12 ng/mL and a cancer antigen 125 (CA125) of 980 U/mL. The first-line imagistic investigation was transabdominal ultrasonography (US) which showed a cirrhotic liver and small dilatations of intrahepatic bile ducts. A hypoechoic tumor of approximately 38 mm in size with rich arterial type Doppler signals inside was visualized near the portal vein and the common bile duct. Magnetic resonance imaging (MRI) and contrast-enhanced ultrasound (CEUS) confirmed the diagnostic of hepatocellular carcinoma.

Conclusion. Abdominal ultrasonography is the first line examination in patients with jaundice and right upper quadrant pain. Focal lesions of the liver are easily detected using standard ultrasonography, but the identification of the type of tumors requires state-of-the-art ultrasound techniques like computed tomography (CT), magnetic resonance imaging (MRI) and contrast-enhanced ultrasound (CEUS). Although CA 125 is present in greater concentration in ovarian cancer cells than in other cells, in this case CA 125 complements alpha-fetoprotein (AFP) to improve the diagnosis of hepatocellular carcinoma (HCC).

Particularities. The contribution of CA 125 in the diagnostic of a hepatocellular carcinoma.

Keywords: hepatocellular carcinoma, CA 125, magnetic resonance imaging, contrast-enhanced ultrasound

UNUSUAL EVOLUTION OF RAPIDLY PROGRESSIVE CRESCENTIC GLOMERULONEPHRITIS

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Introduction. The term rapidly progressive crescentic glomerulonephritis (RPGN) refers to a pathological condition characterized by extracapillary proliferation in more than 50% of glomerulus that associated with a rapid deterioration of kidney function. The most common cause of RPGN is anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis.

Case presentation. P. S., a 47-year-old male patient presented fatigue, weight loss of approximately 4-5 kg in the last 6 months and paresthesias on the anterolateral side of thigh to the dorsalis face of foot bilateral. Lab results from a year ago proved that the patient had normal renal function (Creatinine=2.88 mg/dl; urea=92.8 mg/dL) and moderate normocytic anemia. Biological parameters at hospitalization indicated: moderate normocytic normochromic anemia (hgb=8.8 g/dl), significant inflammatory syndrome (ESR=105, CRP=4.9 mg/dl) with leukocytosis, neutrophilia and eosinophilia, mild thrombocytosis, moderate nitrogen retention (creatinine=3.66 mg/dl; urea=135 mg/dl), mild hyperkalemia, hyperuricemia, moderate hypoalbuminemia, elevated levels of rheumatoid factor. Urinalysis revealed: proteinuria/24 h: nephrotic range proteinuria (2.8 g), hematuria. Immunological screening identified an antibody titre of ANA =1/160 and an increased p-ANCA titer (>600) which helped establish the diagnosis of ANCA- Positive Vasculitis. Ultrasound-guided renal biopsy on the left kidney and the histopathological examination pleads for RPGN associated with a chronic interstitial severe nephritis.

Conclusion. Consequently, the patient was diagnosed with microscopic polyangiitis (p-ANCA positive vasculitis). Following a treatment with prednisone and azathioprine, the patient developed severe pancytopenia (L=1390; Hgb=6.4 g/dl, platelets=68,000), which led to the suspension of azathioprine administration. Evolution was favorable and the patient had an overall good state at discharge.

Particularities. Some particular aspects of this case are the unexpectedly good progress of the patient and the pancytopenia caused by azathioprine administration.

Keywords: glomerulonephritis, extracapillary proliferation, paresthesias, pancytopenia

A FIRST CASE OF RADICAL CYSTECTOMY WITH BRICKER ILEAL CONDUIT URINARY DIVERSION

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Introduction. Radical cystectomy with ileal conduit urinary diversion is a treatment option for aggressive bladder tumors. Bricker's technique is designed to connect the remaining ureters to the abdominal wall by interposing an ileal segment. This conduit prevents urinary reflux and therefore the deterioration of the upper urinary system.

Case presentation. A 55-year old man was admitted to the urology department with macroscopic haematuria. Further investigation, including CT urography and cystoscopy set the diagnosis of bladder cancer. Consecutively a transurethral resection was performed, revealing a G3pT1 tumor, followed by BCG instillation therapy. Poor short-term outcome (tumor relapse at 1 and 3 months, high risk grading, invasive aspect on follow-up MRI) imposed for a radical therapy option. A transperitoneal approach was used. The main operative steps included dissection and isolation of the ureters followed by ligation of latero-posterior bladder pedicles, incision of the rectovesical pouch, dissection of seminal vesicles and the posterior aspect of prostate down to the urethra. The dissection continued on the anterior wall of the bladder and the prostate with ligation of the dorsal vein complex and bilateral nerve sparing and exteriorization of the specimen. Pelvic lymph node dissection was performed before the laparotomic construction of the ileal conduit as described by Bricker. Except for an episode of obstructive pyelonephritis at 2 months (successfully treated with mono-J catheter permeabilization and antibiotics), the postoperative outcomes were favorable. CT urography at 4 months showed normal functioning kidneys, ureters and urinary diversion.

Conclusion. This case sustains the idea that Bricker's ileal conduit is a feasible urinary diversion option for patients undergoing radical cystectomy.

Particularities. The first case of Bricker ileal conduit urinary diversion in the department.

Keywords: cystectomy, Bricker's ileal conduit, bladder cancer

PERIPROSTHETIC FRACTURE WITH CORTICAL DIAPHYSIAL PERFORATION BY THE FEMORAL STEM IN PATIENTS WITH TOTAL HIP REPLACEMENT – A CASE REPORT

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COORDINATOR: OLTEAN-DAN DANIEL

Introduction. Periprosthetic femoral fractures (PFF) following total hip arthroplasty (THA) are devastating complications that are associated with functional limitations and increased overall mortality. The main risk factors for sustaining a periprosthetic fracture is osteolysis associated with implant loosening, osteoporosis and other conditions with pathologic bone. THA is a surgical procedure to correct a hip joint damaged by degenerative disease (osteoarthritis) or fracture of the femoral neck.

Case presentation. A 80 year old female patient presented herself at the Cluj-Napoca Orthopaedic Hospital, in January 2017 complaining of moderate pain started in July 2014 and gradually worsened, around the left hip and upper thigh area, and a reduced function of the left foot. The patient mentioned that a THA was performed in 2008, followed by a local infection. After local debridement and negative infection tests, a revision prosthesis was performed in 2009. After initial clinical and x-ray evaluation, she was diagnosed with a PFF of the femoral diaphysis with displacement of the femural stem, and a new revision of the prosthesis was performed on 13.02.2017. During the procedure, the distal femur accidentally fractured and a cable fixation was performed.

Conclusion. Post-operative evolution was favorable, patient was discharged after 18 days. All post-operative x-ray imaging evidenced a good evolution with a satisfactory reduction and fixation of the femur.

Particularities. This case represents a rare case of a THA which was complicated by an infection and revised, followed by a PFF. The patient developed chronic pain and three years later, the fracture and displacement of the femoral stem was diagnosed and treated successfully.

Keywords: periprosthetic fracture, total hip replacement revision, THA complications, THA

LIFE CHANGES AFTER STROKE: ORGANIC PERSONALITY DISORDER AND PSEUDO-BULBAR AFFECT (PBA)

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COORDINATORS: MICLUTIA IOANA, NICULESCU CELINA

Introduction. Strokes are a common cause of morbidity, causing significant impairments, both mental and physical. Mental impairment can arise as a direct consequence of the stroke with several cognitive impairments, and a pseudo-bulbar affect in our case. It is also possible that physical consequences, such as right hemi paresis and dysarthria may have an indirect contribution to the mental impairment.

Case presentation. C. L., a 76 year old male patient, known with multiple psychiatric admissions, was brought in to the Psychiatry Clinic by his son due to following symptoms: circadian rhythm disorders, fatigue, psychomotor agitation, aggressive behavior, emotional lability and affective incontinence with involuntary outbursts of laughing and crying. The patient was known with incipient senile cataract, organic personality disorder, and primary hypertension, mild cognitive impairment after multiple transient ischemic attacks in 2012 but also with dysarthria and pseudo- bulbar affect after a vertebro-basilar stroke in 2013. The patient's brother was known to have paranoid schizophrenia and blood hypertension. His sister also suffered from schizophrenia and deceased after a stroke at the age of 55. One of his daughters was also diagnosed with paranoid schizophrenia. The patient had 6 children of his own, of which one was an adopted daughter. He resides at his farm with his wife, with the daughter suffering from schizophrenia and also with the adopted daughter suffering from severe intellectual disability. The current treatment includes: Tianeptine (antidepressant), Zopliclone (hypnotic, and Pramiracetam (nootrope).

Conclusion. Pseudo-bulbar affect is a debilitating condition predisposing to other mental impairments such as depression or changes in personality traits including violent behavior.

Particularities. Presence of both uncontrolled crying and laughter, behavioral outbursts as post stroke symptoms.

Keywords: organic personality disorder, stroke, pseudo-bulbar affect (PBA)

OSTEITIS FIBROSA CYSTICA AS A COMPLICATION OF END- STAGE RENAL DISEASE WITH TERTIARY HYPERPARATHYROIDISM

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COORDINATOR: ORĂȘAN OLGA HILDA

Introduction. Osteitis fibrosa cystica is a skeletal disease related to long standing end-stage hyperparathyroidism as a result of progressive deterioration in bone mineral homeostasis. It appears in regions with rapid bone loss due to rapid osteoclastic turnover, hemorrhage, and proliferation of fibrous tissue.

Case presentation. A 39 year old patient presented with a 6 months old painful pretibial mass-like lesion. The patient had a history of Chronic Kidney Disease DOQI stage V and a subtotal parathyroidectomy. The physical exam revealed a painful mass of 9/7 cm, located anterolateral in the lower 1/3 of the right tibia, with a clear edge, smooth surface, firm consistency and with no skin modification. Biopsy of the mass-like lesion, imaging studies, and the high parathyroid hormone serum levels lead to the positive diagnosis of osteitis fibrosa cystica.

Conclusion. Osteitis fibrosa cystica is a form of renal osteodystrophy in patients with advanced kidney disease and has a high impact on their mortality and morbidity. This complication can often mimic other malignant diseases and needs to be taken into consideration for the differential diagnosis of any bony lesions that suggest a malignant condition in patients with hyperparathyroidism.

Particularities. We report here a case of osteitis fibrosa cystica, a condition that has become extremely rare in the evolution of end-stage renal disease.

Keywords: chronic kidney disease, tertiary hyperparathyroidism, osteitis fibrosa cystica, bone cyst

JEJUNAL DIVERTICULUM - A RARE CAUSE OF ACUTE ABDOMEN

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Introduction. Jejunal diverticulosis are rare, incidence being less than 0.5%. It is defined as the herniation of the mucosa and the submucosa from the inside of the muscular layer of the bowel. Often asymptomatic, it may lead to acute symptoms similar to appendicitis or colonic diverticulitis. Perforated jejunal diverticulum is one of the rare causes of acute abdomen generally seen in the elderly.

Case presentation. We report a case of a 69-year-old male patient who had presented with complaints about abdominal pain, nausea, and vomiting. He also related having diarrhoea. He had multiple comorbidities: gastritis, second type diabetes, high essential blood pressure and fatty liver disease. CT of the abdomen demonstrated the presence of extra luminal gas and fluid in the absence of pneumoperitoneum in upper left abdominal quadrant. A laparotomy was performed, confirming the presence of localized peritonitis due to the perforation of a jejunal diverticulum 40 cm distal to the duodeno-jejunal flexure. A segmental resection and primary anastomosis, were performed. The patient had an uncomplicated postoperative course and was discharged after 5 days.

Conclusion. Although jejunal diverticulum is rare and maybe a disease which might be difficult to diagnose, it must be included in the differential diagnosis of acute abdomen. In the case of perforation and peritonitis, exploratory laparotomy, segmental resection and primary anastomosis remains the preferred interventions.

Particularities. We reported a rare case of acute abdomen caused by a perforated jejunal diverticulum which was diagnosed intraoperatively and was treated laparoscopically.

Keywords: jejunal diverticulum, CT, laparoscopic, acut abdomen

UNUSUAL CAUSE OF HEART FAILURE IN THE ELDERLY LUTEMBACHER SYNDROME

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Introduction. Lutembacher syndrome is an extremely rare disease, defined by the coexistence of mitral stenosis (generally acquired) and an atrial septal defect (usually congenital, ostium primum and secundum). Pathology prevalent in women, clinically most patients are asymptomatic until the second to third decade. In general, symptoms are due ASD, depending on the size of the interatrial communication (smaller the ASD, faster the symptoms will appear). The main events include palpitations, heart failure and lung congestion.

Case presentation. A 75 year old patient with atrial tachycardia, for which an ablation of the ectopic focus was done, came to the hospital for dyspnea on minimal effort and fatigue. On physical exam: BP=105/60 mmHg; HR=45/min, normal pulmonary sounds, breathlessness. NTproBNP's increased level orients the etiology of the dyspnea in the cardiovascular field. ECG: Wandering atrial pacemaker (P-wave with various morphologies and different PR intervals between 0.12-0.20s), average ventricular rate 45/min, intermediate QRS axis, right bundle branch block. Exploration of thyroid function (indicated by NYHA Class III heart failure and amiodarone therapy) highlighted TSH de 14.7 iu/ml (n=0.4-4 iu/ml) and FT4=0.689 ng/dl (n=0.89-1.76 ng/dl) due to amiodarone-induced hypothyroidism. Echocardiography revealed moderate rheumatic mitral stenosis associated with ASD type OP with left-right shunt (Lutembacher syndrome), IAS aneurysm, severe secondary pulmonary hypertension and aortic atheromatosis.

Conclusion. Patients hospitalized with heart failure phenomena must be examined for the etiology of the disease, as the diagnosis of this malformation so late in the patient's life is due to the peculiarities of this disease.

Particularities. Although heart failure is a common disease at this age, Lutembacher syndrome as the etiology for heart failure in an elderly patient is unusual in daily practice.

Keywords: atrial septal defect, ostium primum, mitral stenosis, wandering atrial pacemaker

MULTIPLE PRIMARY MALIGNANCIES: A CASE REPORT OF SYNCHRONOUS APPEARANCE OF PROSTATE AND RECTAL ADENOCARCINOMAS

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COORDINATOR: DINA LILIANA

Introduction. Multiple primary malignancies (MPMs) are defined as two or more cancers with no subordinate relationship occurring either simultaneously or not in the same patient. The incidence of MPMs is 2-6.3% of all cancers. Cases of synchronous prostate and colorectal adenocarcinomas have been sporadically reported.

Case presentation. C. T., a 71-year-old man with intermittent history of rectal bleeding and pelvic pain was admitted to IRGH hospital. He had associated complaints such as weight loss and constipation. A digital rectal examination revealed a rigid, painful mass located 6 cm away from the anal verge. Laboratory tests were at normal level, except the serum carcinoembryonic antigen (CEA=100 U/mL3) and cancer antigen 19.9 (CA 19.9=400 U/mL3). Colonoscopy showed vegetant-ulcerative mass and the biopsy confirmed a moderately differentiated adenocarcinoma of rectum. CT scan demonstrated a semi-circumferentially, stenosed mass located on the distal rectum with multiple metastases (pulmonary, hepatic, intra-abdominal). For tumor extension, the pelvic MRI revealed rectal mass with invasion to adjacent structures, such as the prostate, and also a synchronous tumor of prostate with invasion in the bladder wall. The patient reported no urinary symptoms, but the elevated PSA (11.53 ng/ml) and biopsy confirmed the prostatic adenocarcinoma (Gleason grade=4+5).

Conclusion. The diagnosis of synchronous prostate and colorectal cancers is an uncommon co-incidental finding. A multidisciplinary approach including rectal surgery, radiation, hormones and chemotherapy, as used in this case, is a feasible treatment option. Further follow-up is necessary to assess chronic morbidity and long term outcome.

Particularities. Three criteria must be fulfilled in order to characterize MPMs: (I) each tumor must be distinct from each other; (II) each tumor must present definite features of malignancy; and (III) the possibility that one is a metastasis of another must be ruled out. Therefore, this case is noteworthy for the occurrence of synchronous cancers and their unusual composition and histological types.

Keywords: multiple primary malignancies, adenocarcinoma, synchronous

MIGRATION OF A CONTRACEPTIVE SUBCUTANEOUS DEVICE INTO THE PULMONARY ARTERY - CASE REPORT

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Introduction. Contraceptive implants with progestogens are options for women who need long-term contraception. The devices contain etonogestrel that effectively prohibits ovulation over a period of three years.

Case presentation. R.C., a 31 year-old woman, without medical history, requested a contraceptive implant in 2013. A Nexplanon® contraceptive device was inserted into her right upper-limb without apparent complications. Nexplanon® is a radiopaque, non-biodegradable, flexible implant preloaded in a sterile, disposable applicator which contains 68mg of etonogestrel (release rate is approximately 60-70 μg/day). Three years after the initial device insertion, she returned to her health- care institution requesting the removal of the contraceptive implant, as she wished to become pregnant. The device could not be located clinically or following ultrasonography. Hormone assays were positive, confirming that the implant was present in the patient's body. Imaging investigations were performed, looking for a possible migration. A chest-radiograph showed a linear-opaque structure in the pulmonary hemi-left field, whose size and shape were compatible with Nexplanon®. A thoracic CT-scan confirmed the migration and specified its location into the sub- segmental branch of the left-lower-lobe pulmonary artery, without arterial stenosis/thrombosis. Retrieval of the implant was indicated, but after several discussions, it was decided to leave the original device in situ permanently rather than risk removal.

Conclusion. Cardiopulmonary complications after a contraceptive implant migration in pulmonary artery may be serious including infection and thrombosis. Exact location is crucial as endovascular-procedures are now considered as the best way to retrieve endovascular foreign bodies with high success rate and low morbidity.

Particularities. There have been rare reports of Nexplanon® implants having reached the lung via the pulmonary artery. An implant that is not palpable or difficult to palpate at its insertion should be located as soon as possible and removed at the earliest opportunity. Patients must be fully informed about the procedure, including its complications and the risk for failure.

Keywords: contraceptive implant, migration, pulmonary artery

ACCIDENTALLY INGESTED FOREIGN BODY ASSOCIATED WITH LIVER ACTINOMYCOSIS: THE DIAGNOSTIC VALUE OF IMAGING

AUTHOR: PRESCORNITA RADU
COORDINATORS: PLATON MONICA, BADEA RADU

Introduction. Accidental ingestion of foreign bodies is common and usually followed by their passing through the digestive tract. Gastrointestinal perforations are rare and usually caused by fish bones.

Case presentation. We present the case of a 54 year old patient in the emergency department with upper abdominal pain and important weight loss. Abdominal ultrasonography (US) revealed a solid, ill circumscribed liver tumor extending towards the liver hilum and the retroperitoneal space. Contrast enhanced examination ultrasound (CEUS) showed a moderate contrast uptake in the arterial phase, no wash-out during the portal venous and the delayed phases and an intense vascular signal in the surrounding liver parenchyma. The posterior gastric wall showed a 20 mm long hyperechoic image protruding from the gastric cavity towards the inferior surface of the liver. Endoscopic fine needle aspiration revealed a colony of Actynomices, surrounded by inflammatory infiltrate. Malignancy could not be excluded so the patient was transferred to a surgery department for a diagnostic laparotomy. The liver biopsy was suggestive for a chronic liver abscess. Broad spectrum antibiotics and antimycotics were administered with significant improvement, but the echoic image in the posterior wall of the stomach was still visible, suggested a foreign body or fistula. A final diagnosis of actynomicosis of the liver, stomach and pancreas secondary to antral perforation by a foreign body ingestion was established.

Conclusion. Imaging techniques may be misleading because of the non-specific aspect of a liver mass, but using other techniques, such as CEUS, may help show the inflammatory substrate of the lesion. The detection of foreign bodies and fistulas using US or CT may represent the key to the etiological diagnosis.

Particularities. Although abdominal actynomycosis was described more than 150 years ago, it is still one of the most misdiagnosed diseases. The presentation of the disease is more often associated with a malignancy.

Keywords: foreign body ingestion, imaging, ultrasonography, actynomycosis

TWO CASES OF SUPERFICIAL SIDEROSIS OF THE CNS AND A REVIEW OF THE LITERATURE

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Introduction. Superficial Siderosis (SS) of the CNS results from chronic or intermittent bleeding into the subarachnoid space, leading to hemosiderin depositions in the subpial layers of the meninges. There are two types of SS. In 'classical'-type SS, hypointense MRI signals are observed in the brainstem and cerebellum with diffuse and symmetrical margins. In 'localized'-type SS, hypointense MRI signals are localized in the cerebral cortex. The origin of the hemorrhage is often not clear regardless of the extensive paraclinical investigations. Patients usually present with progressive and debilitating symptoms that typically include adult onset, slowly progressive and irreversible cerebellar ataxia, sensorineural hearing loss, and/or myelopathy due to involvement of the acoustic nerve, cerebellum, and spinal cord.

Case presentation. We report 2 new cases of atraumatic SS presented only with unspecific headaches. Diagnosis was confirmed with T2-weighted imaging (WI) or T2* WI which demonstrates characteristic linear low-intensity signals along the surface of the fronto-parietal convexity.

Conclusion. SS of the CNS is a rare disease that may remain underdiagnosed for long periods but because of the good availability of MRI, SS cases are increasingly reported.

Particularities. Cases of SS are very rare especially with unspecific headache as the only symptom.

Keywords: superficial siderosis, subarachnoid haemorrhage, atraumatic superficial siderosis

MALIGNANT PHEOCROMOCYTOMA ASSOCIATED WITH SECONDARY TAKOTSUBO SYNDROME

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COORDINATOR: AGOSTON-COLDEA LUCIA

Introduction. The clinical presentation of the Takotsubo syndrome mimics an acute coronary syndrome with chest pain, ST-segment elevation, T wave inversion, and apical ballooning on echocardiography and ventriculography. Invariably, the coronary arteries are found to be normal or exhibiting minimal atherosclerotic changes. Patients are often postmenopausal women in whom symptoms are triggered by emotional or physical stress, associated with catecholamine surges. Secondary Takotsubo syndrome symptoms can be triggered, however, by an increased catecholamine release due to pheochromocytoma.

Case presentation. A 56-year old female with type 2 diabetes mellitus presented to the emergency room with chest pain and ECG changes suggesting acute antero-lateral myocardial infarction. Coronary artery angiography was performed, ruling out coronary artery disease and apical ballooning emerged on ventriculography. Consequently, secondary Takotsubo syndrome was diagnosed and the patient was discharged from hospital within a week. Three years later, the patient was admitted to the hospital for rhabdomyolysis and acute renal failure. The abdominal ultrasound revealed an abdominal tumor, prompting further investigation by an abdominal contrast-enhanced CT scan. Subsequently, a T4NxM0 left suprarenal tumor, a T3NxM0 left renal tumor and left renal vein thrombosis were diagnosed. The patient was further referred for surgery. Left suprarenalectomy, perifascial nephrectomy and cavotomy with tumoral thrombectomy were performed. Histopathological analysis confirmed malignant pheocromocytoma and type 2 papillary renal-cell carcinoma.

Conclusion. Catecholamine surges in patients with pheochromocytoma may trigger secondary Takotsubo syndrome. An early diagnosis of the underlying condition in patients presenting with apical ballooning syndrome could influence therapeutic decisions and improve prognosis.

Particularities. The reported case illustrates the progression of a malignant pheochromocytoma causing rhabdomyolysis and acute renal failure in a diabetic patient with previously diagnosed secondary Takotsubo syndrome.

Keywords: Takotsubo syndrome, malignant pheocromocytoma, diabetes mellitus

RENAL COLIC AND PAROXYSMAL ATRIAL FIBRILLATION: TWO CONDITIONS OR ONLY ONE? – A CASE REPORT

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COORDINATORS: BALACEANU ALICE

Introduction. Renal colic could mimic multiple pathologies as nephrolithiasis, pyelonephritis, diverticulitis, sub-occlusive intestinal syndrome, ruptured abdominal aortic aneurysm.

Case presentation. A 76 year old female presented to the emergency department for acute onset of severe back pain with radiation to the right flank. She had a history of multiple PTCA in the last years, paroxysmal atrial fibrillation, hypertension and hypercholesterolemia. Clinical examination revealed blood pressure 160/90 mmHg, 112 bpm irregular pulse, dyspnea, orthopnea, right back pain worsened by deep breath, abdominal distension. Lab tests: in normal limits except leukocytosis ($19.50x10^3$/L), neutrophilia ($17.90x10^3$/L), hyperglycemia (178 mg/dl), hepatic cytolysis syndrome (AST 146 U/L, ALT 166U/L). ECG: atrial fibrillation 180 bpm. Chest x-ray: cardiomegaly. Abdominal x-ray and abdominal ultrasound: in normal limits. Transthoracic echocardiography: dilated left cavities without thrombosis, left ventricular ejection fraction 45%. The initial diagnosis was: right renal colic, paroxysmal atrial fibrillation, NYHA class III heart failure, primary hypertension. Medical history, paroxysmal atrial fibrillation, the acute onset led to suspicion of abdominal vascular embolism. Abdominal CT showed horseshoe kidney, acute ischemia of the right kidney, caused by acute thrombosis of renal artery branches. Lactic dehydrogenase (1194 U/L) and creatine phosphokinase (149.10 U/L) were characteristic for renal infarction.

Conclusion. Renal thromboembolism is a rare (0.01%), but severe condition in atrial fibrillation, that could remain underdiagnosed.

Particularities. Common renal colic to a patient with vascular disease and atrial fibrillation hided acute renal thromboembolism.

Keywords: renal infarction, renal colic, paroxysmal atrial fibrillation

ACUTE MYELOID LEUKEMIA EVOLVING FROM CALR-POSITIVE PRIMARY MYELOFIBROSIS – A CASE REPORT

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COORDINATOR: BOJAN ANCA SIMONA

Introduction. Primary myelofibrosis (PMF) is the least common chronic myeloproliferative disorder (MPD) characterized by marrow fibrosis, extramedullary hematopoiesis and splenomegaly. The expression of the Janus kinase 2 (JAK2), calreticulin (CALR), or thrombopoietin receptor (MPL) genes has a major impact on the clinical course and management of PMF. PMF can evolve to an aggressive form of acute myeloid leukemia (AML) in approximately 10% of patients.

Case presentation. T. H., a 44 year old male patient, known with non-alcoholic fatty liver disease, metabolic syndrome, gout, was referred to the Hematology Department in March 2005 with a splenomegaly where he was diagnosed with PMF. Without treatment prescribed, he was supervised periodically until 2013 when imaging evidenced a giant splenomegaly (22/16 cm) and possible splenic infarctions. In March 2015, genetic testing revealed JAK2 negative, CALR positive, Bcr-abl negative PMF and treatment with Ruxolitinib was initiated. In February 2016 a splenectomy was performed. In March 2016, laboratory tests indicated marked leukocytosis (45,000/ul), thrombocytosis (1.700.000/ul), leukemic blasts 40%. Based on bone marrow aspiration and immunophenotyping he was diagnosed with acute megakaryocytic leukemia (AML- M7). Cytoreductive therapy using Hydroxyurea was administered with a positive response. Subsequently, '7+3' chemotherapy was initiated in May leading to complete remission followed by 3 FLAG (fludarabine+cytarabine+G-CSF) regimens. Due to thrombocytosis (1.461.000/ul) Mercaptopurine and Methotrexate treatment was necessary. The patient responded well to treatment, he is in complete remission and he is awaiting an allogenic stem cell transplant (allo-SCT).

Conclusion. Leukemic transformation in PMF is a complication associated with a substantial life-expectancy reduction. An allo-SCT is the only potential cure for PMF.

Particularities. The complexity and severity of the case lies in the early age onset, the presence of the less common CALR mutation and the spontaneous transformation to an aggressive form of acute leukemia.

Keywords: primary myelofibrosis, acute myeloid leukemia, allogenic stem cell transplant, ruxolitinib

THE ROAD TOWARDS DIAGNOSIS IN SNEDDON'S SYNDROME: A CASE REPORT

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Introduction. Sneddon's syndrome (SS) is a rare non-inflammatory thrombotic vasculopathy characterized by the combination of cerebrovascular disease with livedo racemosa (LR). It has been estimated that the incidence of SS is 4 per 1 million per annum and generally occurs in women between the ages of 20 and 42 years.

Case presentation. A 47-year-old woman presented with diffuse headaches and acute right hemicranial episodes of pulsating pain, which debuted a year prior to admission. Family history did not suggest any correlation with the patient's manifestations. Patient was known with essential hypertension and dementia, which was first diagnosed 4 years before presentation. General examination revealed obesity, cold skin with livedo reticularis and racemosa and Raynaud's syndrome. Neurological examination revealed ataxic gait, right hemiparesis (predominantly facial and brachial), right hemibody hypoesthesia and brisker right osteotendinous reflexes. MRI showed multiple cortical and subcortical ischemic lesions in the bilateral carotid and basilar territories. The CT-angiography was not pathologically modified, except for the absence of the left vertebral artery at its site of formation. Coagulation tests and inflammatory markers were normal. Vasculitis was excluded both by antibodies tests and by skin biopsy. The diagnosis criteria were mainly based on clinical examination and the MRI result. Prognosis was guarded considering the late presentation and the preexisting cerebral lesions.

Conclusion. Idiopathic SS associated with neither antiphospholipid syndrome nor systemic lupus erythematous, represents an important obstacle in the road towards diagnosis due to difficulties in matching clinical manifestations of the disease and the limited data obtained from paraclinical tests.

Particularities. In addition to the discrepancy between the clinical presentation and the scarce paraclinical findings, this case reveals a rare cause of stroke which could be prevented, only if diagnosed at an early stage.

Keywords: Sneddon, vasculopathy, livedo raceomosa, cerebrovascular disease

SYSTEMIC CAPILLARY LEAK SYNDROME AFTER CHEMOTHERAPY

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Introduction. Systemic capillary leak syndrome (Clarkson's disease) is a rare acquired disorder determined by increased capillary permeability with extravasation of plasma in the interstitial tissue leading to hypotension, dyspnea, edema, hypoalbuminemia and hemoconcentration. The cause of this rare disorder is still unknown, but autoimmune mechanisms have been offered as an explanation.

Case presentation. A 67 year old patient presents with dyspnea and edema in both lower limbs. At examination she had hypotension, tachycardia and decreased vesicular murmur on both basal areas of the lungs. Echocardiography showed dilation of the right ventricular and atrial cavities as well as severe pulmonary hypertension. The patient had a history of ovarian cancer that was treated with Paclitaxel and Carboplatin. After differential diagnosis with pulmonary embolism, chronic obstructive pulmonary disease and dysfunction of the left ventricle, treatment with diuretics and hydrocortisone was initiated. The exclusion of the differential diagnoses and the rapid improvement of the patient's condition lead to the diagnosis of systemic capillary leak syndrome.

Conclusion. After 7 days of treatment, echocardiography showed amelioration of the pulmonary hypertension, chest X-ray showed minimal pleural effusion and the NT-proBNP value was 600 pg/ml.

Particularities. Systemic capillary leak syndrome is a disease that does not have any diagnosis criteria and everything else must be ruled out before deciding that a patient with risk factors is suffering from this syndrome. In this patient's case there was no other explanation for the pulmonary hypertension, pleural effusion, edema, hypotension and hypoalbuminemia except the history of treatment with Paclitaxel which is known to be a risk factor for systemic capillary leak syndrome.

Keywords: systemic capillary leak syndrome, pulmonary hypertension, Paclitaxel

A CASE OF ANTISYNTHETASE SYNDROME

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Introduction. Antisynthetase syndrome is an autoimmune disorder characterized by inflammatory myopathy and interstitial lung fibrosis. Anti-JO-1 are the most frequently associated antisynthetase antibodies.

Case presentation. A 66 year old woman, showing dyspnoea, dry cough, proximal myalgia, small joint polyarthritis, aphonia and malaise, presented to the „CFR Hospital' Craiova. Laboratory evaluation showed increased ESR, LDH, RF, and Anti-JO-1 positivity. Chest radiography showed interstitial lung fibrosis. CT scan showed 'ground glass'' and 'honeycombing' pattern, fibrotic linear opacities and bronchiolitis. The diagnosis was antisynthetase syndrome and treatment with glucocorticoids-Medrol 16 mg, q.d. and immunosuppressive agents-Azathioprine 50 mg, b.i.d.- in association with PPI and Ca and Vitamin D was initiated. After 6 months, overall clinical and biological status improved but she developed Diabetes mellitus. GC taperig to 8 mg q.d., AZA increase to 50 mg t.i.d and addition of oral antidiabetic medication were considered and initiated, maintaining for the next 6 months the same beneficial treatment results.

Conclusion. The clinical pattern consisting of inflammatory myopathy and symptomatic interstitial lung fibrosis should always be considered in the setting of antisynthetase syndrome. Antisynthetase antibodies, particularly anti-JO-1, are the most common immunological trait. GC in association with immunosuppressive agents are frequently used for treatment with good results. Close monitoring is the key to successful treatment and early identification of treatment adverse events.

Particularities. The particularity of this clinical case is that after 6 months of Medrol the patient developed diabetes mellitus. Also the symptomatology started with coughing and dyspnoea.

Keywords: antisynthetase syndrome, anti-JO-1 antibodies, interstitial lung fibrosis, diabetes mellitus

AGGRESSIVE INFECTIVE ENDOCARDITIS: A MAJOR CHALLENGE

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Introduction. Although Staphylococcus aureus is the causative agent in only 25% cases of infective endocarditis, it determines the most aggressive course of the disease with a mortality rate of 40-50%. Around 35-60% of Staphylococcus aureus bacteremias are complicated by infective endocarditis and more than half of the cases are not associated with underlying valvular disease.

Case presentation. A 50-year-old patient presented to our department with the following symptoms: fatigue, arthralgia, ocular and low back pain, which had abruptly started 4 days before. Physical examination revealed temporo-spatial disorientation, fever (37.9°C), left eye subconjunctival hemorrhage, petechiae on the extremities and face, splinter hemorrhages, Janeway lesions, systolic murmur in the mitral region. Paraclinical investigations evidenced a bacterial inflammatory syndrome, high procalcitonin levels, thrombocytopenia, hypopotassemia, elevated rheumatoid factor, hepatic cytolysis syndrome. Hemocultures from 3 blood samples were positive for Staphylococcus aureus. Transesophageal echocardiogram revealed a 4 cm² fistulised myocardial abscess, severe mitral valve insufficiency and a 60% ejection fraction. CT scan showed multiple infarcted areas and an abscess in the spleen. In evolution, the patient presented left eye visual impairment, episodes of dromomania and left upper quadrant abdominal pain. Under antibiotic therapy fever persisted (37-38°C) and neurological symptoms remitted. Splenectomy was performed and cardiac surgery was scheduled.

Conclusion. The patient met 2 major and 4 minor Duke's criteria for positive diagnosis of infective endocarditis. This demonstrates the high virulence of the staphiloccocal infection which led to important systemic manifestations.

Particularities. This case report proved that such an acute manifestation of the disease can also be experienced by young patients with apparently no underlying valvular disease. Being previously diagnosed with gout, it was interestingly observed that the patient presented two episodes of arthritis with no hyperuricemia. In addition, after the splenectomy a new episode of fever with negative hemocultures raises a question about its etiology.

Keywords: infective endocarditis, abscess, Staphylococcus aureus, fever

MESENTERIC PANNICULITIS – AN INCIDENTAL DIAGNOSIS OF A RARE CONDITION

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Introduction. Mesenteric panniculitis (MP) is a chronic, benign, unspecific and idiopathic inflammation of the adipose tissue in the mesentery. It represents a phase of fatty tissue degeneration at this level, starting with lipodystrophy, continuing with inflammation and ending in retraction and fibrosis.

Case presentation. A 70-year-old woman with documented essential arterial hypertension, liver steatosis and high triglycerides levels was admitted to the hospital after 2 months history of diffuse, unspecified abdominal-pain. She was referred for abdominal ultrasound (US) evaluation that evidenced a hypoechogenic mass in the left hypochondrium, between the intestinal loops, with vascular sign at the color Doppler investigation (CDI). Intravenous contrast agent (CEUS) was administered and showed a rapid, non-homogeneous filling of the mass during the arterial time, without a wash-out of the contrast agent during the venous time. CT scan showed the presence of hypertrophic fatty tissue at the level of the mesentery. The mesenteric vessels crossing was surrounded by a less dense peripheral halo (fat ring sign), while the other abdominal organs were normal. The diagnosis of mesenteric panniculitis was suggested. Exploratory laparotomy was performed in order to obtain bioptic samples for the pathological examination of the lesion.

Conclusion. MP is a rare clinical entity and the diagnosis represents a challenge to physicians especially because of its non-specific signs and symptoms. The initial diagnosis is imaging, and the final one pathological. Ultrasound examination is decisive in the primary identification of the lesion. CDI and CEUS evidence a circulatory signal, benign in nature.

Particularities. So far, less than 300 cases have been reported in the literature. Before the 'imaging era', MP was rarely diagnosed. Nowadays, the condition is more frequently discovered, but still by chance, during examinations for other diseases. US can have a decisive role in the primary identification of the lesion. Differential diagnosis must take into account the most frequent mesenteric tumors.

Keywords: mesenteric panniculitis, ultrasonography, benign, rare condition

HEPATIC CIRRHOSIS AND THE ENTIRETY OF ITS POTENTIALLY FATAL COMPLICATIONS

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Introduction. Hepatic cirrhosis is an advanced stage of any hepatocytic affection, characterized by a fibrous orientation of the liver's architecture. Due to its complications-spontaneous bacterial peritonitis (SBP), hepatocellular carcinoma, superior digestive hemorrhage (SDH), hepatic encephalopathy (HE), hepatorenal syndrome, its evolution can turn out to be devastating.

Case presentation. We present the case of a 65 year old patient, known with chronic hepatitis with Hepatitis virus C for 18 years and with hepatic cirrhosis for 15 years, who was admitted to Elias hospital in october 2016 for enlargement of the abdomen, nausea, bilious vomiting, diffuse abdominal pain, diarrhea and oliguria. From the patient's history: esophageal varices stage II, portal vein thrombosis, an episode of SBP 6 months ago and a hepatocellular carcinoma diagnosed by abdominal ecography and tomography, but a normal alpha fetoprotein. The clinical exam showed cutaneous stigmata of cirrhosis, slurred speech, tense ascitis and cachexia. Biohumoral: inflammatory syndrome with leucocitosis, hepatic depletion syndrome, hyperammonemia and azotate retention.After performing paracentesis, the suspicion of recidivating SBP was confirmed (5600 PMN/mm3 liquid of ascitis). Multiple evacuatory and exploratory paracenteses were performed (18 L liquid of ascitis) and treatment with Ceftriaxon, human albumin 20% and fresh frozen plasma was administered.

Conclusion. The evolution was slowly favourable, with the resolution of the second episode of SBP, normalization of diuresis and regression of the azotate retention. Previous to the discharge, the patient suffered an episode of SDH through portal hypertensive gastropathy (a superior digestive endoscopy was performed), followed by an aggravation of the HE manifestations. After the treatment, the clinical and biological picture ameliorated steadily.

Particularities. We report here the case of a patient with a long history of chronic infection with HVC and hepatic cirrhosis who was associated with multiple complications and has survived despite a recidivating SPB, a SDH and a hepatocellular carcinoma with an evolution of at least one year.

Keywords: hepatic cirrhosis, spontaneous bacterial peritonitis, hepatic encephalopathy, hepatocellular carcinoma

ORTHOPEDIC SURGICAL MANAGEMENT OF AN ATYPICAL CASE OF CHONDROSARCOMA

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Introduction. Chondrosarcoma is a rare malignant tumor composed of cartilage-producing cells. Unlike other bone cancers such as osteosarcoma, it is more common among older people than among children and it more often affects the axial than the appendicular skeleton. It is resistant to chemotherapy and radiotherapy. The complete surgical removal without amputation and also the postoperative care can be challenging.

Case presentation. A 11 year old boy was admitted for pain and edema of the upper third left calf. The pain started three months prior to the presentation, more severe in the evening and after moderate to high physical effort. Radiography investigation showed a proximal metaphyseal lesion of the left tibia which suggested a diagnosis of osteosarcoma. The histological findings based on the incisional biopsy indicated chondroblastic osteosarcoma, confirmed later by immunohistochemistry with the final diagnostic, grade 2 chondrosarcoma. The patient underwent integral arthroplasty of 1/3 proximal left of both tibia and fibula, along with 1/3 distal left femur. The prosthesis was covered with a flap from gastrocnemian muscle. The excisional biopsy confirmed the oncological safety edges, as well as the diagnosis. Short term post-operative development was favorable, with early introduced physiotherapy. After a medium term clinical course, the plague evidenced a dehiscence with partial vascular necrosis of the flap. The next decision was to begin the Negative-Pressure-Wound-Therapy (NPWT). He underwent multiple surgical procedures for proper wound management and replacement of the NPWT dressing with a favorable evolution.

Conclusion. This case presents a rare bone cancer, chondrosarcoma, occurring in an atypical young age and having an uncommon limb localization. The management of postoperative complications is favourable based on the Negative-Pressure-Wound-Therapy.

Particularities. The particularities of this case are: the rare localization of chondrosarcoma on the inferior limb, as well as the young age of the patient.

Keywords: arthroplasty, tibial chondrosarcoma, negative pressure wound therapy, excisional biopsy

AN UNUSUAL CAUSE OF ANGINA PECTORIS IN A PATIENT WITH SITUS INVERSUS TOTALIS AND CONGENITALLY CORRECTED TRANSPOSITION OF THE GREAT VESSELS

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COORDINATOR: ENACHE ROXANA

Introduction. Congenitally corrected transposition of the great vessels (ccTGV) is a rare congenital heart disease (less than 1% of all cardiac congenital diseases) in which the heart twists abnormally during fetal development and the ventricles are reversed.

Case presentation. We present the case of a 44-year-old male, known with situs inversus totalis that presented with symptoms of severe dyspnea and dextro- thoracic angina-like pain. Physical examination revealed right-sided apical impulse and an apical systolic murmur. Laboratory tests showed dyslipidemia and normal BNP levels. Resting ECG revealed a systemic ventricular hypertrophy and the chest X-ray displayed dextrocardia. Transthoracic echocardiography revealed a parallel arrangement of the great arteries, with the aorta anteriorly and the pulmonary artery posteriorly, a systemic ventricle with increased trabeculation and moderator band, together with a apically localized atri-ventricular valve with significant regurgitation, suggesting a functional systemic ventricle with a right ventricle morphology. The aorta emerged from this ventricle, displaying ventricular-arterial discordance. The atrium corresponding to the systemic ventricle presented a left atrium morphology, thus indicating atrio-ventricular discordance. The two discordances were consistent with the diagnosis of ccTGV. No other associated defects were identified. Due to the presence of angina, coronary angiography was performed, revealing a single coronary artery without significant atherosclerosis.

Conclusion. The symptoms and prognosis depend mostly on the associated heart anomalies. The uncommon patient with isolated ccTGV is asymptomatic early in life. The diagnosis may be established via a chest X-ray or ECG routinely performed. Otherwise, this condition is usually diagnosed when patients present with complete heart block or heart failure due to systemic right ventricle failure or systemic tricuspid valve regurgitation.

Particularities. Angina is a rare symptom and may be functional, due to a volume overload of the systemic ventricle or to associated coronary arteries abnormalities, as in our patient.

Keywords: angina, single coronary artery, congenitally corrected transposition of the great

WILKIE'S SYNDROME: AN UNCOMMON CAUSE OF RECURRENT EMESIS

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Introduction. Wilkie's syndrome or superior mesenteric artery (SMA) syndrome is a rare clinical entity comprising 1% of the cases of small intestinal obstruction. It is characterized by the entrapment and compression of the third part of the duodenum in the angle between the aorta and the SMA.

Case presentation. A 63-year-old male, non-smoker, without significant past medical history, presented to the emergency room for unremitting vomiting, pain in the upper abdomen and significant weight loss during last few weeks. There was no history of dietary or alcohol abuse, recent trauma or surgery. The patient was extremely weak with signs of severe dehydration. Physical examination on admission revealed a distended abdomen with epigastric tenderness, hyperactive bowel sounds and a BMI of 19.5. There was no palpable organomegaly. Laboratory investigations showed mild anemia (hemoglobin 10g/dl), hypokalemia (3 mEq/L) and elevated CRP (9 mg/l); the rest of the laboratory workup was normal. Plain abdominal radiograph showed a dilated stomach with a prominent air fluid level. Upper GI endoscopy was performed, which did not reveal any mucosal lesions. A CT was ordered which revealed distended stomach and duodenum proximal to the third part, which was compressed in the aortomesenteric angle; while, the angle between SMA and the aorta is 22 to 60 degrees, in this case, the aortomesenteric angle was 15.5. A diagnosis of Wilkie's syndrome was set and conservative management was initiated. Because of its inefficiency the patient was transferred to surgery where a gastrojejunal anastomosis was performed. After an uneventful postoperative period, he was discharged symptom-free five days later.

Conclusion. Since its first comprehensive description by Wilkie, few cases have been reported in medical literature. Because of its rarity and non-specific symptoms, vomiting, upper abdominal pain or constipation, it can represent a real challenge for an unwary clinician.

Particularities. Considering the patient age and symptoms, a malignant pathology was suspected, whereas it was, in fact, as benign as it may be.

Keywords: superior mesenteric artery syndrome, anemia, upper gastrointestinal obstruction, aortomesenteric angle

UPPER GI BLEEDING - WHAT'S HIDDEN UNDER THE MUCOSA?

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Introduction. GISTs-gastrointestinal stromal tumors, represent 1% of gastrointestinal tumors; they are mesenchymal neoplasms, thought to develop from the interstitial cells of Cajal, usually found in the stomach or small intestine, but can occur anywhere along the GI tract. They are often characterized by over-expression of the c-KIT receptor or PDGFRA, which leads to uncontrolled proliferation.

Case presentation. A previously healthy 46-year-old man presented in the ER with melenic stools of 48 hours duration and unremarkable medical or family history. He denied smoking, use of NSAID, antiplatelet or anticoagulants. Physical exam on admission revealed marked pallor, hypotension (systolic BP 100 mmHg), tachycardia (105 bpm), nontender abdomen without peritoneal irritation signs. Digital rectal exam confirmed melena and laboratory work-up showed moderate normocytic anemia (Hb=7.8 g/dl), a 6g drop during the last month. Fluid resuscitation was started and an emergency upper GI endoscopy was done, which revealed a large submucosal mass on the great curvature of the stomach, with central ulcer and stigmata of recent bleeding. A CT scan was ordered to evaluate for intratumoral bleeding. The patient was admitted to the Gastroenterology Department and was prescribed intravenous proton pump inhibitors and blood transfusions. Endoscopic ultrasound was performed to better characterize the mass, to evaluate the layer of origin and for the differential diagnosis of the various types of submucosal tumors. We set a preoperative diagnosis of GIST and transferred the patient to surgery. A posterior longitudinal gastrectomy was performed, with good outcome. The histopathology report showed tumoral proliferation with round-spindle cells, with nuclear atypia and minimal mitotic activity; immunohistochemistry was positive for CD117.

Conclusion. Although rare, GISTs should be considered as a possible cause of upper GI bleeding. Surgery is the primary treatment of choice in localized GISTs.

Particularities. Although rare, GISTs should be considered as a possible cause of upper GI bleeding. Surgery is the primary treatment of choice in localized GISTs.

Keywords: gastrointestinal bleeding, melena, anemia, endoscopic ultrasound

A RARE CASE OF INTRADUCTAL PANCREATIC MUCINOUS NEOPLASM EVOLVED IN ADENOCARCINOMA ASSOCIATED WITH A PANCREATIC TAIL NEUROENDOCRINE TUMOR

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Introduction. Intraductal Pancreatic Mucinous Neoplasm (IPMN) is a rare mucin producing cystic tumor of the pancreas, which is classified by the location as main-duct (MD), branch-duct (BD) or a mixed-type (MT). The average age of patients is 68 years. Pancreatic neuroendocrine tumors (PanNET) are neoplasms made of cells with features of normal pancreas endocrine cells. They are 1-2% of all pancreatic tumors and the association of IPMN and PanNET is completely uncommon.

Case presentation. A 54 year old male was admitted in our surgical department with mild abdominal pain. During clinical examination an abdominal mass was palpated in the epigastric region. Abdominal ultrasound showed a tumor within the head of the pancreas. MRI revealed a polycystic formation, measuring 8.8/6.5/10.2 cm in the cephalic pancreatic area and retrograde Wirsung dilatation. Endoscopic ultrasound established that the lesion was an IPMN cT3NxMx. After 8 days of preoperative preparation a pancreaticoduodenectomy was proposed. During surgery an extemporaneous examination showed positive resection margin on the pancreatic stump and a total pancreatectomy was performed. Postoperative evolution was remarkable, with the patient's glycemic levels varying from 90 to 228 mg/dl in the hospitalization period and patient was discharged after 11 days. The three- month evaluation revealed no complications and a good glycemic control. Final histopathology report showed MT-IPMN with severe dysplasia, pT1N0MxL0V0R0, evolved with invasive adenocarcinoma and also PanNET, pT1N0MxL0V0R0, stage IA in the pancreatic tail.

Conclusion. The patient suffered simultaneously of IPMN with severe dysplasia and invasive adenocarcinoma and PanNET, which were curatively resected and post surgery diabetes mellitus was well controlled.

Particularities. An uncommon association of MT-IPMN and PanNET, with minimal clinical symptoms. The MT-IPMN had a very large dimension, and it featured as stage I.

Keywords: IPMN, PanNET, total pancreatectomy

PANCREATIC ASCITES: A PECULIAR COMPLICATION OF CHRONIC PANCREATITIS IN A PATIENT WITH UNDERLYING LIVER DISEASE

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Introduction. Pancreatic ascites is a rare entity which may develop in patients with chronic alcoholism and pancreatitis or as a consequence of pancreatic duct injury. Conservative therapy is the most common initial treatment option but has high failure rates; hence the argument for interventional therapy as a preferred primary treatment option.

Case presentation. A 48-year-old man with a history of alcohol dependence presented in the Emergency Department for progressive abdominal distension and upper abdominal pain worsened in the past three days. His prior medical history included chronic pancreatitis with an acute episode in the previous year, cholelithiasis, and he had been recently diagnosed with decompensated liver cirrhosis. Laboratory findings revealed elevated white blood cell count, positive HBsAg test and elevated serum amylase (1419 U/L) and lipase (1334 U/L) levels. Ultrasound showed a liver with surface nodularity and heterogeneous echotexture. Abdominal CT revealed significant ascites, atrophied pancreatic parenchyma with heterogenous enhancement and calcification with a dilated pancreatic duct of 7 mm. Upper gastrointestinal endoscopy showed a slight edema of the gastric mucosa and no esophageal varices. Several diagnostic and therapeutic large volume paracentesis (LVP) were performed revealing hemorrhagic fluid with amylase 11 961 U/L, lipase 2850 U/L and total proteins 2.8 g/dL.

Conclusion. Management of pancreatic ascites poses significant diagnosis and therapeutic challenges. The recurrence of ascites after treatment with somatostatin analogues, parenteral nutrition and repeated ascitic fluid drainage made the patient an ideal candidate for Endoscopic retrograde cholangiopancreatography (ERCP).

Particularities. Liver cirrhosis is the most common cause of ascites, but in this case the patient was suspected of pancreatic ascites secondary to pancreatic duct fistula due to chronic pancreatitis with underlying alcoholic liver disease.

Keywords: ascites, pancreatitis, ERCP

THE EVOLUTION OF A DIAGNOSIS FROM A CHRONIC VILLONODULAR SYNOVITIS TO AN EPITHELIOID SARCOMA

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Introduction. The epithelioid sarcoma is an extremely rare malignant tumor of the soft tissue that usually affects young adults. It is characterized by nodules involving tendons, fascias or aponeuroses, which tend to evolve from local spread to generalized metastasis. The initial lesion of the tumor is often confused with less life threatening conditions.

Case presentation. A 34 year old female patient was referred on the 22.10.2014 to the Plastic Surgery department of the Clinical County Hospital of Tirgu Mures complaining of pain, swelling and stiffness of the right hand, which had appeared about 7 months ago. On examination, the swelling was diffuse, firm and adherent to the deeper planes. A partial synovectomy and aponeurectomy was performed and the histological examination disclosed a chronic villonodular synovitis. On the 24.11.2014, the patient was admitted with the same symptoms plus an enlarging tumor mass in the same location and after local excision, the histological examination revealed the previous diagnosis. On the 08.12.2014, the patient was readmitted with a recurrence of the tumor mass. This time, after a much larger excision, the Histopathology department discovered a high grade malignant tumor, confirmed also by immunohistochemistry. Positive results for pancytokeratin, EMA and Vimentin supported the diagnosis and negative results for HMB45 excluded the melanoma.

Conclusion. The final diagnosis was epithelioid sarcoma associated with a low survival prognosis. Right upper limb amputation was performed along with the recommendation of radiochemotherapy.

Particularities. We report here an extremely rare tumor which can be easily confused with other pathologies. The dramatic nature of the case is given by the fact that the patient died soon after the amputation, due to metastatic complications.

Keywords: epithelioid sarcoma, chronic villonodular synovitis, evolution of a diagnosis

THE ERASMUS SYNDROME. PARTICULARITIES OF A SHORT SERIES OF CASES

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COORDINATOR: DUMITRAȘCU DAN-LUCIAN

Introduction. Students represent a population category with vulnerability to stress. Due to the advent and spread of ERASMUS mobilities, many students live and learn abroad for longer periods. Some of these do not cope with the new conditions and develop a posttraumatic stress disorder (PTSD), called ERASMUS syndrome. We report here a series of three cases.

Case presentation. ***Case 1:*** A male student, diligent and with good social skills, was sent out in the Southern part of a Mediterranean country for a semester. Surprisingly, he developed there panic attacks, felt himself endangered, feared violent attacks against him, blamed the officers who intermediated his stage abroad and returned after less than 2 weeks, very unhappy for the time spent. Back home he returned to a normal life and activity. ***Case 2:*** A male student who selected a stage in the same country became nervous before leaving, considered himself badly advised in this choice and few days before departure refused to leave because of anxiety. ***Case 3:*** An incoming female student from a Western country became very demanding, vocal and aggressive few weeks after the arrival at the host university. Despite any effort to meet her demands, she remained until the end of her stage unhappy and vociferous.

Conclusion. This is the first report of a short series of cases with PTSD developed during the ERASMUS stage. It proves the reality of the ERASMUS syndrome.

Particularities. ***Case 1*** was the first encountered in our area. ***Case 2*** developed PTSD even before departure. ***Case 3*** manifested rather an aggressive, not an anxious personality.

Keywords: Erasmus, students, posttraumatic stress disorder

PRE-IMPLATATION GENETIC DIAGNOSIS (PGD) IN A WOMAN AFFECTED BY FAMILIAL POLYCYSTIC KIDNEY DISEASE (PKD)

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COORDINATOR: GHOLAMHOSSEIN GHOLAMI-NOUDEH

Introduction. Autosomal Dominant Polycystic Kidney Disease (ADPKD) is a common nephropathy caused by a genetic fault in the gene PKD1 or PKD2 that disrupts the normal development of the nephrons architecture with transformation into clusters of noncancerous cysts.

- PKD1- accounts for 85% of the cases;
- PKD2- accounts for 15% of the cases.
- Both types have the same symptoms but they tend to be more severe in PKD1.
- The disease causes a variety of severe complications such as hypertension, hematuria, kidney stones, upper UTIs and eventually kidney failure.
- A child has a 50% chance of developing PKD if one of the parents has a faulty gene.

Case presentation. A 27 year old nulligravida affected by familiar PKD1, who wished to become pregnant, had a family history showing that her grandmother, aunt and mother were affected and that the latter died at the age of 45 after 3 years of dialysis. In order to achieve a healthy pregnancy the patient underwent IVF with egg recovery and fertilization. 10 embryos were obtained, and 6 of these reached the blastocyst stage. Trophectoderm biopsies were performed by laser on all of them. They were then vitrified and sent to the lab for further screening via karyomapping, next generation sequencing (NGS), aneuploidy screening (PGS) and diagnosis (PGD).

Conclusion. PGD and PGS resulted in 2 normal embryos and 4 affected by PKD1. Recently 1 of those 2 healthy embryos was thawed and transferred into the uterus (TEV) and it resulted in a singleton pregnancy. The other healthy embryo is preserved vitrified for the future.

Particularities. The goal of PGD is to reduce the likelihood of an affected pregnancy, however it can not negate the chances of this occurring. PGD is based on the results from testing a small number of cells from an embryo and is therefore subject to experimental error. A Prenatal Safe Test was performed during the 10th week of pregnancy showing the conception of a healthy male.

Keywords: pre-implantation genetic diagnosis, polycystic kidney disease, IVF, prenatal safe test

CONGENITAL CATARACTS, FACIAL DYSMORPHISM AND NEUROPATHY SYNDROME

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Introduction. Congenital cataracts facial dysmorphism and neuropathy syndrome (CCFDN) is a genetic disease manifested in Balkan gypsies. The pattern of inheritance is autosomal recessive and a causative mutation is in the CTDP1 gene. Affected patients display congenital cataracts, microcornea, peripheral neuropathy, mild facial dysmorphism, hypogonadism and psychomotor delay.

Case presentation. We present the case of two siblings: a boy (11 years old) and a girl (8 years old) with CCFDN in order to illustrate a rare disorder and to discuss the management of the patients and their family. The genetic exam was requested for congenital cataract in both eyes, facial dysmorphism and psychomotor delay. They are both children of an unrelated, young couple. The family history revealed the father and one of his brothers with ankylosing spondylitis and one father's cousin deceased at the age of 3 months with hydrocephalus. Anamnestic data show that the boy was the first child. Pregnancy was uneventful, the child was born naturally, at term. Congenital cataract was diagnosed late and he was surgically treated at the age of 11 months. Postnatal development was delayed: he held his head at 1 year, in present he cannot stay on both legs without support and he cannot walk. The girl is the second child. Pregnancy was uneventful, she was born naturally, at term. She was diagnosed with congenital cataract, surgically treated after few months. Postnatal development was delayed (started walking at 4 years). Additional investigations (neurological, electrophysiological, ophthalmologic) made at both children confirmed the presence of sensorimotor polyneuropathy and eye abnormalities. The sequence analysis confirm the c.863+389C>T mutation in CTDP1 gene.

Conclusion. CCFDN syndrome is a complex developmental disorder of autosomal recessive inheritance, affecting preferentially the gipsy population.

Particularities. This case presents the following particularities: microcephaly, prognathism, severe kyphoscoliosis and severe motor deficiency.

Keywords: congenital cataracts facial dysmorphism neuropathy, psychomotor delay, autosomal recessive disease

GLUCOCORTICOIDS - FRIEND OR FOE?

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Introduction. Dermatomyositis is an idiopathic inflammatory myopathy with specific skin involvement and possible multisystem complications. The mainstay of initial therapy are high-dose corticosteroids, which can induce multiple side effects, including an inhibitory effect on both innate and acquired immune response, thus predisposing to infection.

Case presentation. A 64 year old female was referred to our Dermatology department for a heliotropic rash and severe bilateral weakness of the proximal muscles. She was diagnosed with dermatomyositis and treated with 64 mg/day o.d. oral methylprednisolone. Before hospitalization, she also reported a dry cough, apparently resolving, with normal chest x-ray on admission. Six days later the symptoms advanced to hemoptysis, dyspnea and fever. CT scan revealed bilateral pulmonary abscesses. Klebsiella pneumoniae infection was confirmed from cultures of bronchoalveolar lavage and broad spectrum antibiotics were administered with initial favorable outcome, but ten days later she suddenly became severely dyspneic at rest. Repeated CT scan revealed a massive right pneumothorax, that was successfully drained. During hospitalization, the patient also developed drug- induced diabetes mellitus, thrombocytopenia due to linezolid, acute kidney injury because of meropenem, nausea, vomiting and diarrhea secondary to doxycycline. After a 36-day hospital stay, her numerous conditions improved and she was discharged home.

Conclusion. High-dose corticosteroid treatment has multiple repercussions, individualized to each patient, requiring close supervision and prompt interventions for any alarming signs or symptoms.

Particularities. What initially seemed a typical case of dermatomyositis turned to be a cascade of complications. Very early in the course of treatment, high dose corticosteroids unraveled a bilateral Klebsiella pneumoniae lung infection with multiple abscesses that evolved to massive pneumothorax. The patient developed several other severe complications from the therapy regimens, receiving targeted interventions for every particular one, leading to a successful recovery.

Keywords: dermatomyositis, high-dose corticosteroids, lung abscess, Klebsiella pneumonia

BILATERAL URINARY STONES SOLVED BY MULTIMODAL ENDOSCOPIC TREATMENT - CASE REPORT

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Introduction. Urinary lithiasis represents the formation of the calculi in the urinary system. It may be asymptomatic, but more often the condition is extremely painful. Surgery may be necessary if the stones cannot be excreted spontaneously. It has been observed that urinary lithiasis affect hypertensive patients disproportionately compared to normotensive individuals. Also, some prospective data suggest that a history of nephrolithiasis has been associated with a greater tendency to develop hypertension. Newer epidemiologic data also link obesity and diabetes, features of the metabolic syndrome, with nephrolithiasis. The aim of our paper is to present a challenging case of bilateral lithiasis intricate with various comorbidities.

Case presentation. A 63-year old male patient was admitted in the Urology Department from Mures County Hospital on 21 February 2017 with left renal colic. The patient was known with a medical history of lithiasis, benign prostate hyperplasia, hypertension, type 2 diabetes mellitus, obesity, hipercholesterolemia, asthma. Laboratory exam, renal ultrasound and intravenous urography showed the presence of bilateral ureteral lithiasis and left ureter hydronephrosis. On 24 February 2017 a left retrograde ureteroscopy was performed succesfully with fragmentation and extraction of 2 stones and with another one pushed back in the kidney and also a left JJ stent was placed. A month later the patient presented again to the hospital and a left percutaneous nephrolithotomy was performed for the kidney stone and 3 days later, a right retrograde ureteroscopy which included the extraction of 3 pelvic calculi and mounting of a right JJ stent for a month.

Conclusion. The treatment proved to be efficient. After multiple interventions, the patient is stone-free, the disease is under control and the general state of the patient is improved. The patient was discharged home in stable condition after 3 days from surgery.

Particularities. The particularity of the case is the multiple comorbidities associated with bilateral lithiasis.

Keywords: multimodal endoscopic treatment, bilateral lithiasis, hypertension, diabetes

RETROGRADE APPROACH IN REVASCULARISATION OF CHRONIC TOTAL OCCLUSIONS OF THE RIGHT CORONARY ARTERY

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COORDINATOR: CÂLMÂC LUCIAN

Introduction. Chronic total occlusion (CTO) is defined as atherosclerotic coronary disease that produces the complete obstruction of flow in an epicardial vessel for a period of 3 months or greater. Over the past two decades, there has been an increasing interest in retrograde techniques for successful revascularization of CTO, which is associated with improvement in symptoms, quality of life and prognosis. The complexity of these procedures presents a major challenge.

Case presentation. We present a case of a 65 y.o. male with cardiovascular risk factors, admitted for an anterior ST-elevation myocardial infarction. The emergency coronary angiography revealed that the culprit lesion was in the left anterior descending (LAD) artery and subsequently was treated, but it also revealed an occlusion in the right coronary artery (RCA) that was not responsible for the acute event, with developed septal collaterals, and was therefore considered a CTO. The decision was to attempt revascularisation of the CTO 1 month later. Echocardiography showed 5 hypo functional segments in the inferior territory. Given that it was not possible to enter the true lumen after two antegrade approaches with different guidewires, a successful retrograde deobstruction was performed via a septal branch from the LAD, followed by antegrade angioplasty with 4 drug-eluted stents in the third, medial and proximal segments of RCA and posterior interventricular artery.

Conclusion. Successful revascularisation of chronic total occlusions of right coronary artery using retrograde approach, followed by antegrade angioplasty with implantation of 4 drug-eluted stents, reaching a final TIMI flow grade of 3.

Particularities. Retrograde approach is a procedure that is technically complex and demanding on time and resources; however, it was an option for our patient with complex CTO segments that were anatomically appropriate. There is evidence that if the territory is viable, revascularisation of the artery is beneficial and increases life expectancy.

Keywords: retrograde deobstruction, chronic total occlusion, coronary angioplasty, revascularisation

AN UNCOMMON ASSOCIATION: DIABETES MELLITUS- PRIMARY OPEN ANGLE GLAUCOMA- VOGT-KOYONAGI-HARADA SYNDROME

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Introduction. Vogt-Koyonagi-Harada (VKH) is an uncommon multisystemic inflammatory disorder characterized by panuveitis with serous retinal detachment and is often associated with neurologic and cutaneous manifestations including: headache, hearing loss, vitiligo and poliosis.

Case presentation. We present the case of a 58 year old female with diabetes mellitus and a history of primary open angle glaucoma in both eyes, operated on the left eye two weeks prior to the presentation and under topical antiglaucomatous drops. She came into the ophthalmological service with decreased visual acuity in both eyes. The slit lamp examination revealed keratic precipitates and posterior iris synechiae in both eyes and an ExPress aqueous shunt in the left eye. Inferior retinal detachment was observed during ocular fundus examination. Intraocular pressure value was within normal range under antiglaucomatose drugs.

Conclusion. The association of diabetes mellitus and VKH Syndrome influenced the visual prognosis of the patient because of the prolonged costicosteroid treatment.

Particularities. The distinctiveness of this case was the association of the VKH Syndrome with primary open angle glaucoma and the inability to prolong the corticosteroid treatment, necessary in this case due to the association of diabetes mellitus.

Keywords: diabetes mellitus, panuveitis, glaucoma, Vogt Koyonagi Harada

MYOCARDIAL BRIDGE - POTENTIAL SOURCE OF SOME COMPLEX HEART DISEASES – A CASE REPORT

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COORDINATOR: VOICULEŢ CORNELIA

Introduction. Myocardial bridging, a congenital coronary anomaly, is a cluster of myocardial fibers crossing over the epicardial coronary arteries. This entity is more common, with an angiographic incidence of about 15% to 60%, being present, in a third of adults, usually localized in the line of the anterior interventricular artery. Myocardial bridges may be generally asymptomatic or associated with various clinical manifestations, some of which may be potentially fatal.

Case presentation. A 42-year-old female presented with recurrent retrosternal chest pain of 10 years duration, recently increased in frequency, associated with paresthesia in the left arm. The patient has a history of smoking, ischemic heart disease in the family and hypertension. Physical examination revealed plethoric facies, bilateral basal vesicular murmur with rare subcrepitant rales and hypertension. Laboratory investigations expose a normal resting electrocardiogram. Physical efforts uncovered ischemic changes in the anterior-apical territory, confirmed through myocardial scintigraphy. Echocardiographic examination demonstrated preservation of the global systolic function, without any significant valvulopathies. The angiography evidenced the characteristic appearance of myocardial bridge, reporting both the systolic narrowing of the epicardial artery and the return to normal during diastole.

Conclusion. Given these findings, the patient was diagnosed with coronary muscular bridge. Treatment included hygienic-dietary therapy associated with drug therapy to reduce the heart rate, increase the diastolic range and decrease the systolic compression. The evolution was favorable; three months after initiation of therapy, the patient no longer complains of chest pain at physical effort.

Particularities. Because the systole brings only 15% of coronary flow, the clinical relevance of the myocardial bridge appears in situations such as tachycardia, myocardial infarction, arrhythmias, sudden death. Controversy exists concerning its clinical and prognostic relevance and the appropriate therapeutic approach for symptomatic patients. Therefore, clinical suspicion should be considered in all cases of chest pain in patients without cardiovascular risk factors.

Keywords: coronary anomaly, myocardial bridge, chest pain, valvulopathies

PARTIAL ANOMALOUS PULMONARY VENOUS CONNECTION WITH INTACT ATRIAL SEPTUM: A CHALLENGING DIAGNOSE

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Introduction. Partial anomalous pulmonary venous connection (PAPVC) is a congenital heart defect causing a left-right shunt due to abnormal drainage of one or more lung veins to right atrium or to systemic veins. PAPVC is a rare condition and it is often associated with other congenital heart anomalies. Our report concerns a 51- year-old man who had a right upper pulmonary lobe vein PAPVC draining into the superior vena cava, which was found during cardiac MRI angiography. The patient was asymptomatic up to the last hospitalization and had no accompanied congenital anomaly.

Case presentation. The patient presented for episodically fast pace palpitations which had started in the last month; he also presented headaches and a sensation of warmth in the head. He was known with erosive gastritis and benign prostatic hyperplasia since 2016. The clinical examination showed tachycardia, a normal blood pressure, no pulmonary crackles and no signs of systemic or pulmonary stasis. Laboratory tests were normal except for hypercholesterolemia. The EKG revealed atrial flutter 2:1 ratio and major right bundle branch block. The transthoracic echocardiography showed a major dilatation of right heart and pulmonary arteries, an efficient right ventricle, mild pulmonary arterial hypertension (PAH) (35 mmHg), without any visible left-right shunt. Cardiac MRI angiography was performed, which established the diagnosis of PAPVC, without any cardiac anomaly associated.

Conclusion. This case highlights the need to exclude a PAPVC and other left- right shunt in patients with unexplained, asymptomatic PAH and right-sided chamber enlargement.

Particularities. Atypical presentation with atrial flutter but with no symptoms of PAH at admission. No atrial septal defect was present, which is a less frequent condition of PAVPC.

Keywords: congenital heart defect, left-right shunt, pulmonary arterial hypertension, abnormal drainage

CHOLEDOCOLITHIASIS COMPLICATED WITH ACUTE SUPPURATIVE CHOLANGITIS AND HEPATIC ABSCESSES – ERCP OR SURGERY?

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COORDINATOR: GROZA ANDREI

Introduction. Acute suppurative cholangitis is characterized by the obstruction, inflammation, and pyogenic infection of the biliary tract, associated with a clinical template of fever, jaundice, pain, septic shock and central nervous system depression (Reynolds pentad). Mortality rates for severely ill patients approach 100% without appropriate antibiotic therapy and immediate decompression of the biliary tract. As emergency surgery carries formidable postoperative morbidity and mortality rates, endoscopic drainage is becoming the preferred solution for treatment.

Case presentation. We present the case of a 40 year old female nurse who was admitted to the hospital with right-upper quadrant pain, jaundice and fever - Charcot triad. The patient had a history of cholelithiasis for which she had undergone laparoscopic cholecystectomy. The laboratory and imaging studies performed (ultrasonoghaphy, MR-cholangiography) suggested lithiasic obstruction of the common bile duct, with large intrahepatic biliary dilatations, confirmed by the curative endoscopic retrograde cholangiopancreatography (ERCP) which followed. After 48 hours under antibiotic treatment, high fever reappeared (39°C), accompanied by tachycardia, tachypnea, BP=80/50 mmHg and alteration of the patient's neurological status (Glasgow score 10). The antibiotic treatment was updated to Meropenem and Metronidazole. Surgical evaluation and repeated US were followed by a CT examination, revealing intrahepatic abscesses, aerobilia and peripancreatic edema. The medical team decided to avoid surgery and successfully performed two more ERCP's, attempting to clear the biliary system. Blood cultures turned positive for *Enterococcus faecium* and *Pseudomonas aeruginosa*, validating the septic shock and fulfilling the template of acute suppurative cholangitis. Post-ERCP treatment with Vancomycin and Ciprofloxacin resulted in complete clinical and paraclinical recovery.

Conclusion. Appropriate antibiotic treatment and early biliary decompression are paramount in the management of acute suppurative cholangitis. Endoscopic drainage through ERCP provides a safer treatment alternative to the high morbidity and mortality rates associated with a surgical approach.

Particularities. The severe, life threatening complications presented are uncommon for a young, immunocompetent patient. This case highlights the importance of well-conducted clinical and imagistic workup topped by efficient endoscopic treatment of a disease which poses great risks for surgery.

Keywords: complicated choledocolithiasis, acute suppurative cholangitis, hepatic abscess, ERCP

ANKYLOSING SPONDYLITIS WITH JUVENILE ONSET

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Introduction. Ankylosing spondylitis (AS) is an autoimmune disease which primarily affects the spine and the sacroiliac joints. The peripheral joint involvement is usually characteristic of the early onset of the disease which is considered before the age of 16.

Case presentation. A 22-year-old male patient presented with arthritis of both knees and elbows, first right interphalangeal joint and mechanical pain of the left ankle. The first symptoms of the current disease started at the age of eight with pain, swelling and marked dysfunction of the left ankle. Treatment with nonsteroidal- anti-inflammatory drugs yielded partial response but was accompanied by gastrointestinal side effects. Subsequently, other joints were affected: left elbow, right knee, right elbow. One year ago, inflammatory low back pain, cervical pain and temporomandibular pain and dysfunction were added to the clinical manifestation. Clinical examination found a Schober Test of 3 cm. Biological markers revealed increased inflammatory parameters, while rheumatoid factor and anti-cyclic citrullinated peptide antibodies were negative. Imaging showed asymmetric bilateral sacroiliitis, absence of syndesmophytes. These findings strongly suggested the diagnosis of AS with juvenile onset. Treatment with Sulfasalazine was indicated, but the patient had cutaneous side effects which led to the temporary interruption of the therapy. The clinical and paraclinical picture and the high disease activity score led to the indication of anti-tumor necrosis factor alfa therapy, which the patient refused fearing side effects.

Conclusion. In this case the early onset of AS associated with the late diagnosis and late therapy led to the accelerated progression of the disease.

Particularities. The particularities of the case are represented by the drug therapy side effects and the refusal of biological therapy.

Keywords: ankylosing spondylitis, partial response, side effects

SYSTEMIC SCLEROSIS: A DIAGNOSTIC PUZZLE. A CASE REPORT

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Introduction. Systemic sclerosis (SS) is a rare disorder, characterized by connective tissue alterations. Given the significant morbidity associated with dynamic skin fibrosis and visceral organ involvement, it is important to formulate an accurate diagnosis from the early stages of the disease. However, either as a result of the inefficiencies in the health care system or due to cognitive errors, the correct diagnosis of this condition is frequently delayed.

Case presentation. A 40 year old woman, with a two year history of SS, was admitted on the 9th of September 2016 in the Rheumatology Clinic (RC). She presented with multiple comorbidities: fatigue, dyspnea and important weight loss, along with the specific marks of the main condition: arthralgia of the knees, metacarpophalangeal joint stiffness of the right hand, puffy hands, Raynaud phenomenon and thickened skin on the face and forearms. Medical history revealed that she was previously treated (in a local hospital) with hydroxychloroquine and sulphasalazine, on the grounds that her symptoms (defectively evaluated) were a manifestation either of rheumatic arthritis, seronegative spondyloarthropathy or reactive arthritis. Her state worsened significantly under therapy. She was then referred to the RC where, after the physical examination of the patient (noteworthy, sclerodactyly and the skin changes were recognized only here) the suspicion of SS was raised. Capillaroscopy and high level anti-SCL-70 antibodies confirmed the diagnosis. Also, the computed tomography demonstrated interstitial lung fibrosis, therefore intravenous cyclophosphamide therapy was initiated.

Conclusion. One of the essential steps in improving patient care is establishing the correct diagnosis. In this case, all the necessary criteria were present upon her first admission to the local hospital. However, due to inadequate clinical reasoning and because several investigations were not available, the correct diagnosis was missed.

Particularities. The patient presented polyarticular synovitis of the metacarpophalangeal joints in a rheumatoid arthritis-like pattern, thus leading to the misdiagnosis of SS.

Keywords: systemic sclerosis, medical errors, scleroderma lung disease, rheumatoid arthritis-like pattern

ARTHROSCOPIC TREATMENT OF PATELLAR INSTABILITY

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Introduction. Patellar instabilities can be treated by classical or arthroscopic reconstruction. Both surgical treatments require a personalized rehabilitation program and a classic monitoring of the patient in the following time.

Case presentation. A 31 year old patient presented in our outpatient clinic with complaints about chronic patellar instability in the left knee due to repeated minor trauma during amateur soccer games. A recurrent patellar instability and a positive McMurray test were highlighted at the physical examination. A magnetic resonance imaging examination was obtained, revealing multiple left internal meniscus lesions and a partial rupture of the anterior cruciate ligament. An arthroscopic intervention was recommended under general anesthesia with the resection of the injured internal meniscus, debridement, percutaneous fixation under arthroscopic control and anatomical stabilization of the patella. The patient resumed the physiotherapy program in the 2nd day after the intervention, followed with 10 days of active physical movements, based on a personalized program. During the arthroscopy, a grade IV chondropathy was identified and the patient was directed to a platelet rich plasma treatment in three sessions. At 24 hours after surgery, the knee was clinically evaluated and had no signs of inflammation, with anatomical stability and physiological patellar alignment.

Conclusion. Patellar instability combined with meniscus and chondral lesions can be surgically treated by arthroscopy leading to shorter and cheaper hospitalization expenses and also reducing the reintegration time of the patient into society.

Particularities. Before the surgery, the patient was diagnosed with a urinary tract infection caused by *Proteus Mirabilis*, responsible for the arthroscopic intervention delay. The infection was treated according to the urine culture results and the antibiogram.

Keywords: arthroscopy, patella, instability, meniscus

MANAGEMENT OF MAJOR AORTOPULMONARY COLLATERAL ARTERIES (MAPCAS) IN A PATIENT WITH DOUBLE OUTLET RIGHT VENTRICLE

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Introduction. Double outlet right ventricle (DORV) describes a heterogenous series of cardiac abnormalities involving the right ventricle outflow tract where both great arteries originate predominantly from the right ventricle being associated with the development of major aortopulmonary collateral arteries (MAPCAs). MAPCAs provide additional source of blood supply to the lungs along with the native pulmonary artery leading to hemoptysis and complications during total correction surgery.

Case presentation. A 27 year old man was admitted for hemoptysis and dyspnea upon mild exertion. He had been diagnosed in 2008 with a complex cyanotic congenital heart disease (DORV with severe infundibular pulmonary stenosis, perimembranous VSD, anterior mitral leaflet cleft with significant regurgitation) and reevaluated in 2015, when cardiac catheterization detected normal pulmonary pressures. Aortography revealed MAPCAs. Since August 2016 he had experienced episodes of hemoptysis. Transcatheter embolization of a bronchial collateral artery was performed in October 2016. Two months later moderate hemoptysis recurred leading to the present hospital admission. Physical examination showed general cyanosis, 80% O2 saturation, BP 110/70 mmHg. The echocardiogram showed the mentioned abnormalities and good ventricular function. Lab results revealed polycythemia, no inflammation. Aortography showed two bronchial arteries from the upper third of the descending aorta supplying bilateral pulmonary hypervascularized areas. Embolization of the bronchial collaterals was performed via femoral artery using 500-710 μm particles.

Conclusion. The trancatheter embolization had good results (no hypervascularization in the upper lobe of the right lung). Medium term clinical course is favorable, without recurrent hemoptysis at 3-months follow-up, allowing for referral for complete surgical correction in an expert centre (occlusion of MAPCAs reduces the risk of postoperative pulmonary edema by decreasing the blood flow).

Particularities. This case presents a complex cyanotic heart disease (DORV) associated with MAPCAs and complicated with hemoptysis impacting the decision to perform surgery. Transcatheter MAPCAs embolization is easy to perform, relatively safe and effective in potentially fatal hemoptysis.

Keywords: double outlet right ventricle, major aortopulmonary collateral arteries, transcatheter embolization

TINU SYNDROME – A CASE REPORT

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Introduction. TINU Syndrome is a rare disease described in young adults and combines idiopatic tubular interstitial nephritis (TIN) and uveitis. Limited data suggest the pathogenesis involves mCRP (modified C-reactive protein), a self-antigen binding to both uveea and renal tubular cells. Clinical manifestations include weight loss, abdominal pain, photophobia, bilateral ocular pain and polyuria.

Case presentation. A 43 year old female was admitted in the Nephrology Department with a syndrome of nitrogen retention (6.62 mg/dl creatinine and 92 mg/dl ureea), dehydration, left conjunctival erythema, anisocoria and cephalees. Clinical findings included diffuse abdominal pain, left eyelid oedema and eythema and conjunctival erythema.The ophtalmic exam revealed acute anterior uveitis of the left eye. Abdominal ultrasonography showed a normal kidney appearance which sustained the diagnosis of acute renal injury. Blood tests showed inflammation (ESR=120 mm/1h), microcytic anemia, mild hypokaliemia and urine test revealed hematuria (50/µL) and proteinuria (100 mg/dL). Further investigations including immunological tests excluded a glomerular syndrome. Another diagnosic of exclusion was multiple mieloma, taking into account the unexplained anemia, value of ESR and renal injury. The electrophoresis of the urinary proteins showed no presence of monoclonal immunoglobulins. The diagnosis of TINU syndrome was set after excluding other causes of acute tubulointerstitial nephritis (NSAIDs, antibiotics, CMV and Epstein Barr infections). Treatment included intravenous rehydration, antiemetics, antibiotics (Ceftriaxon), local treatment with Dexametazone. Given the persistence of nitrogen retention syndrome, a renal puncture biopsy was performed. Treatment was continued with Prednison (40 mg/day, progressively lowering the doses).

Conclusion. A month later, the renal function was normal, with no other signs of disease activity. The overall prognosis is good, possibly lowered by the recurrence risk for uveitis.

Particularities. We report a case of a middle age women presenting TINU syndrome, both the age and the frequency of the disease being uncommon.

Keywords: interstitial nephritis, uveitis, idiopathic

SEQUESTRED THROMBUS IN FORAMEN OVALE - AN UNEXPECTED COMPLICATION AFTER A CORONARY ARTERY BYPASS GRAFTING SURGERY

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Introduction. A thrombus sequestered in a patent foramen ovale (FO) is a particularly rare form of paradoxical embolism. It implicates the halting in the travel of a thrombotic embolism at the point of patent defect in the interatrial septum with subsequent thrombus obtrusion into both atria. Such an emboli presents with a high risk of stroke or pulmonary embolism indicating the need for an interdisciplinary team to guide treatment.

Case presentation. A 53 year old male presented with acute ischemia of the right arm. The patient had undergone bypass surgery 3 weeks prior. His ischemic symptomatology was under heparin treatment but days later he experienced recurrent bouts of hemoptysis. Thoracic CT evidenced acute bilateral pulmonary embolism (PE). Doppler echo showed deep vein thrombosis (DVT) in the right leg, unnoticed prior to the bypass surgery. Transesophageal echocardiography demonstrated a patent FO with a sequestered thrombus extending into both atria of significant dimensions. An emergency surgical intervention was decided upon. A spiral, adherent thrombus roughly 7x2cm lodged in the FO extended into the right atrium, through the tricuspid valve and into the ejection tract of the right ventricle. Transseptal excision of the left atrial extension was performed and the patent septum was sealed. Lab tests indicated a thrombophilia with hyperhomocysteinemia related to a MTHFR gene mutation.

Conclusion. The postoperative evolution was favorable, the patient was discharged a week later in sinus rhythm and under anticoagulation and antiaggregation therapy. Three months later, thoracic CT revealed complete remission of the bilateral PE.

Particularities. We report the case of a patient with previously asymptomatic trombophilia due to hyperhomocysteinemia, a condition which was exarcerbated by the bypass surgery and extracorporeal circulation, and led to a fulminant prothrombothic state with DVT, PE and intracardiac thrombus related to DVT, only three weeks after heparin postoperative treatment. The entrapped thrombus in FO is a surgical emergency and requires an interdisciplinary approach.

Keywords: foramen ovale, deep vein thrombosis, MTHFR gene mutation, thrombus

AN UNUSUAL IMAGING PRESENTATION IN RENAL TUBERCULOSIS

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Introduction. Hematuria is a medical emergency but sometimes the patient is misdiagnosed because of lack of imaging techniques or a contraindication of the contrast agents.

Case presentation. FA, a 46-year-old man, was referred to the Nephrology Department of the Mureş County Hospital due to recent development of renal failure and a one year history of intermittent hematuria. He was overweight, BMI=38, in good clinical condition, complaining of continuous back-pain worsened by the upright-position. On clinical examination blood pressure was normal, Giordano sign was present bilaterally. Laboratory tests revealed an elevated serum creatinine level 1.7 mg/dl, eGFR (MDRD) 46ml/min/1.73m2 and serum urea 87 mg/dl. Other glomerular, liver, hematological and coagulation tests were within normal range. In case of unexplained azotemia we always perform ultrasonography, which in this case showed an unusual presentation. Both kidneys had a normal size and presented an irregular hyperechoic lining in the periphery of the cortical zone that appeared like a contour of the renal capsule, with no vascular signal on Doppler ultrasound. Bilateral grade 1 hydronephrosis was also detected. We suspected tuberculosis and the positive urine cultures confirmed the diagnosis. The patient received specific medication for 6 months. On the follow-up, the renal condition improved, urine cultures were negative and after 8 months the medication was stopped. Renal function remained normal, but the ultrasound aspect was unchanged.

Conclusion. Clinicians should always have in mind that the association of hematuria with renal failure can also have a non-glomerular etiology. Ultrasound is a useful tool in evaluating the kidney structure and has the advantages of being noninvasive and easily repeatable.

Particularities. Bilateral renal tuberculosis is rare, usually only one kidney being involved. The association of renal and genitourinary tuberculosis is rare, but in our case, the presence of hydronephrosis was explained by ureteral strictures.

Keywords: tuberculosis, hematuria, renal, ultrasound

AGGRESSIVE EVOLUTION OF FAMILIAL MEDULLARY THYROID CANCER (FMTC)

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Introduction. Medullary thyroid cancer (MTC) arises from the neural crest- derived, calcitonin-secreting, parafollicular C cells and represents 3-10% of all thyroid cancers. Although most cases are sporadic, about 20% cases are part of an autosomal dominant inherited disorder (Multiple Endocrine Neoplasia type 2A, 2B). Mutations in the rearranged during transfection (RET) proto-oncogene are considered central to the pathogenesis, with strong genotype-phenotype correlation.

Case presentation. We report a case of a 36 year old woman diagnosed in 2009 with bilateral multifocal MTC, having highly elevated calcitonin (857 pg/ml). After total thyroidectomy, detectable calcitonin level suggested residual locoregional disease, thus an extended lateral neck dissection was performed a year later in Germany. Due to family history (mother with MTC at age 44 who died of recurrent disease seven years after apparent curative thyroidectomy), further DNA analysis was performed and the test revealed a heterozygous mutation of the 11th exon of RET gene, Cys634Tyr mutation. Current treatment includes substitution therapy addressing the postsurgical hypothyroidism and hypoparathyroidism. During the follow-up, our patient presented undetectable levels of calcitonin, until January this year, when values started to rise, now up to 7, without association of other neoplasia, physical examination revealing a good state with only mild dysphonia and positive Chvostek sign.

Conclusion. The complete approach of a patient and family history combined with early genetic test of the first-degree relatives are critical to proper management. Serum calcitonin, a highly sensitive biomarker, had an essential role in post resection surveillance monitoring in this particular case suspicious of recurrence of FMTC.

Particularities. The initial therapeutic strategy underestimated the preoperative calcitonin levels and familial history, missing the genetic screening before surgery. After six years of remission, calcitonin is again detectable and rising. The screening of the patient's son for the putative codon 634 RET mutation was negative, allowing exclusion for annually follow-up by calcitonin dosage.

Keywords: familial medullary thyroid cancer, RET mutation, calcitonin, thyroidectomy

A RARE CASE OF AN UROTHELIAL TUMOR

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COORDINATOR: BRAD ALEXANDRU

Introduction. Urothelial tumors develop from the transitional epithelium type which is present in the calyces, pelvis, ureter, bladder and proximal urethra. Usually, this pathology is more common in males around the age of 60 years old. Mainly, the risk factors involved are smoking and occupational long exposure to various toxic substances.

Case presentation. We present the case of 72 year old male who was admitted in the Urology Clinic of Tîrgu-Mureș Emergency County Hospital accusing: rectal bleeding, acute low back pain colic character, nausea, vomiting. From previous medical history our patient had had a radical cystectomy bypass Mainz Pouch II urinary type for muscle-invasive bladder tumor (pT2 urothelial carcinoma G2) in 2003.The patient presented chronic smoking; he worked in a toxic environment for 30 years and urological consultation raised suspicion of a high right urothelial tumor, recommending an ultrasound abdominal exam and abdomeno-pelvic CT. Ultrasound revealed a dilated right kidney with an inhomogeneous structure of 3x3 cm. The CT scan identified a parenchymal renal pelvis formation of 35X36 mm; without lymphadenopathy or abdominal metastases.

Conclusion. Following personal history, clinical examination and laboratory examinations our patient was diagnosed with a high right field urothelial tumor, right secondary hydronephrosis ,anemia and chronic smoking. A total nephroureterectomy with right uretero-sigmoid anastomosis excision was performed.

Particularities. Our case involves risk factors such as smoking, occupational exposure, in the appearance of urothelial neoplasms and also, 13 years after cystectomy for urothelial bladder tumor, a new urothelial tumor appeared which proves the importance of controlling the whole urothelial field for a long time.

Keywords: cystectomy, neoplasms, nephroureterectomy

MULTIPLE THORACIC ARTERIOUS-VENOUS FISTULAS IN A PATIENT WITH NON-SPECIFIC CARDIAC SYMPTOMS

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COORDINATORS: BENEDEK THEODORA, RAT NORA

Introduction. We present a case of a 31-year-old man, admitted to the Cardiology Clinic in Tîrgu Mureş, with non-specific symptoms associated with episodes of tachycardia-bradycardia arrhytmia.

Case presentation. ECG showed a heart rate of 75 bpm, flat T wave in DIII and aVF, and negative in V1 and V2. Stress testing associated with computed tomographic angiography (CTA) revealed alteration of myocardial perfusion. CTA also showed multiple arterious-venous fistulas between the aorta, superior vena cava (SVC), pulmonary veins and azygos system. Cardiovascular Surgery consult indicated fistulas ligation: aorta-SVC -, aorta-left superior pulmonary vein, azygos-right superior pulmonary vein, however this intervention was rejected by the patient. In the absence of surgical intervention, the therapy consisted of metopropol 2x1/day for an indefinite duration, leading to significant improvement of the symptoms.

Conclusion. Arterio-venous fistulas are a very rare malformation associated with a large variety of signs and symptoms. CTA, the gold standard technique for detection of arterio-venous fistulas, can be used for location of this malformation, assessing their complexity and helping to choose the best therapy.

Particularities. The particularity of the case is the discrepancy between the symptoms of the patient and the imagistic result. Another particularity is the unknown etiology of tachycardia-bradycardia arrhythmia accompanied by chest pain whereby the patient was hospitalized several times.

Keywords: CTA, arterio-venous fistulas, tachycardia-bradycardia, cardiology

THE GOOD PROGNOSIS OF EARLY-DETECTED OESOPHAGEAL SQUAMOUS CELL CARCINOMA TREATED WITH RADIO-CHEMOTHERAPY

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Introduction. Oesophageal squamous cell carcinoma (ESCC) is the most prevalent histological type of oesophageal cancer worldwide, with a poor prognosis and a higher incidence in eastern countries.

Case presentation. We present a case of a 61 year old male patient with a history of alcohol consumption, asthma disease and deep venous thrombosis, who was admitted in October 2014 for the evaluation of progressive dysphagia for about two months, describing in the same time a long history of heartburn. The upper digestive endoscopy detected a proliferative process in the oesophagus: starting at 16 cm until 23 cm from the dental arcade. The mass was ulcerated and highly haemorrhagic. Chest and abdominal computed tomography (CT) showed a proliferative process, involving circumferentially in the upper third of the oesophagus, having a maximum thickness of 18 mm, causing a partial stenosis of the oesophageal lumen. The process had 6 cm length, pushing the trachea anteriorly, and was in contact with the C7, T1 and T2 vertebral bodies. Pathological examination of the specimen revealed squamous cell carcinoma in situ, positive for ki 67 proliferation index. Biopsies from the lower oesophagus revealed a squamous-columnar junction with intestinal metaplasia, without dysplasia, aspect suggestive for Barrett oesophagus. The patient underwent regular chemo-radiotherapy treatment for staging tumour. The follow-up endoscopies described minimal scar lesion in the upper oesophagus, without signs of proliferation or recurrence, with minimal reactive changes and mild dysplasia induced by radiotherapy. The patient was free of symptoms until the last check-up, in February 2017.

Conclusion. The early diagnosis of oesophageal cancer, without surgery, is associated with a very good prognosis and a high quality of life after chemo-radiotherapy.

Particularities. The upper oesophageal squamous cell carcinoma in situ with an endoscopic and CT scan appearance of more advanced tumor in a patient with Barrett oesophagus successfully chemo-radio treated, without mucosal resection.

Keywords: oesophageal, squamous, carcinoma, ESCC

CYCLOPIA, A SEVERE FORM OF HOLOPROSENCEPHALY - CASE REPORT

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Introduction. Holoprosencephaly is a major congenital malformation which can occur between the 18th and 28th day of gestation and is characterised by the absence or incomplete cleavage of the prosencephalon into separate hemispheres. An extreme form of HPE is cyclopia, defined as the failure of the embryonic prosencephalon to divide the orbits of the eye in two cavities. Usually cyclopia is a malformation incompatible with life, diagnosed in the first trimester.

Case presentation. A 15 year old patient delivered a 34-week living fetus with alobar holoprosencephaly, cyclopia and proboscis. The fetus was diagnosed with multiple malformations at the first obstetrical exam at 29 weeks of gestation. Despite the patient being advised to perform further investigations, such as genetic tests and IRM, she refused, along with her mother, any possible examination. Twenty-four hours later she delivered vaginally a living fetus weighting 1995 g.The clinical examination of the new born revealed: cyclopia, proboscis, low implanted ears, polydactyly of the upper limbs. The newborn lived for 40 minutes. The pathological examination of the newborn revealed an eyeball with choroid, ciliary body and conjunctiva structures, but no retina or optic nerve. The microscopic examination of the proboscis revealed respiratory epithelium, along with mucous glands in the submucosa and cartilage fragments.

Conclusion. Cyclopia is a severe congenital malformation, incompatible with life, but due to the late obstetrical examination pregnancy termination was no longer an option.

Particularities. Although the fetus was diagnosed with a severe congenital malformation which is normally incompatible with postnatal life, it survived for 40 minutes.

Keywords: cyclopia, holoprosencephaly, proboscis, polydactyly

THE CORONARY FISTULAS – COMPUTED TOMOGRAPHY EVALUATION

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Introduction. Coronary artery fistulas (CAF) are congenital defects discovered accidentally. They represent an abnormal communication between the coronary arteries and a cardiac chamber or a vascular structure. Regularly there are not important changes, but if the symptoms persist, they need to be treated. Non- invasive technique such as Multislice Computed Tomography (MSCT) is usually used to detect the coronary anomalies. If there are symptoms such as angina or dyspnoea it is mandatory the surgical or percutaneous closure of the communications.

Case presentation. We present the case of a 47-year old male patient with CAF. In his cardiovascular history, he was known with acute anterior myocardial infarction and revascularization with a drug-eluting stent on the left anterior descending coronary artery (LAD). The electrocardiography showed sinus rhythm with negative T waves in the precordial derivations. Echocardiogram revealed hypokinesis of the anterior wall, with an ejection fraction of 48%. The MSCT showed a persisting contrast located in the medium segment of the LAD's stent, associated with an atheromatous plaque without significant stenosis and a coronary shunt at the emergence of the circumflex artery. The patient was asymptomatic, without chest pain, dyspnea or fatigue, thereby we chose the conservative treatment and a rigorous follow-up.

Conclusion. These rare coronarian anomalies in most cases are discovered incidentally. Non-invasive assessment, such as magnetic resonance or multislice computer tomography-are widely available and offer safe information of the fistulas.

Particularities. Adults are in most cases asymptomatic, but the symptomatology depends on the localization and the size of the communication. The symptoms that can occur are: chest pain, arrhythmias, dyspnoea and fatigue. At the physical examination, a specific systolic and diastolic murmur was detectable.

Keywords: fistula, stent, asympthomatic

ATYPICAL PRESENTATION OF P-ANCA VASCULITIS AND THE IMPORTANCE OF A KIDNEY BIOPSY IN CHOOSING THE PROPER TREATMENT - A CASE REPORT

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COORDINATOR: ANDRONESI ANDREEA

Introduction. The main abnormality in ANCA vasculitis is the production of autoantibodies against neutrophils, with subsequent tissue injury. These are rare small vessel vasculitis, with general symptoms and multi-organ involvement mimicking many disorders, which often carries a poor prognosis in the absence of a proper treatment.

Case presentation. A 75 year old female patient was hospitalized for a gradual increase in creatinine during the past 8 months. At admittance the patient was overweight, with moderate leg edema and left pleural friction rub. Biochemistry showed chronic nephritic syndrome, with creatinine 2.2 mg/dl. The symptoms had started 14 months before with myalgia, arthralgia, asthenia, inflammatory syndrome and mild anemia, so she was diagnosed in a rheumatology department with rheumatic polymyalgia. 8 months ago she was hospitalized in an oncological department and renal impairment. Because of pleural effusion, severe anemia and inflammatory syndrome a malignancy was suspected, but this was not confirmed. She suddenly developed left side paralysis, aphasia and subsequently an unexplained coma. Then her status gradually improved. Because of the chronic nephritic syndrome and these past symptoms we suspected a small vessel vasculitis which was further confirmed by positivity for pANCA antibodies. Kidney biopsy showed advanced glomerular and tubular sclerosis and active glomerular lesions with necrosis and cellular crescents. Immunosuppression was started with induction therapy with steroids in small doses (because of advanced age and osteoporosis at dual X-ray absorptiometry) and 6-months cyclophosphamide pulses followed by maintenance therapy with azathioprine and alternate-days steroids. Evolution was favorable, with pANCA negativity, stable renal function, resolution inflammatory syndrome and general symptoms, without additional neurological symptoms.

Conclusion. Small vessel vasculitis often carries a poor prognosis and this is the main reason that proper treatment should be prompt and efficient.

Particularities. A personalized and a proper treatment offered a favorable prognosis while minimizing the risk of side effects in a rare disease with the potential of a severe outcome.

Keywords: P-ANCA vasculitis, cyclophosphamide, nephritic syndrome, kidney biopsy

FEMORAL ARTERY PSEUDOANEURYSM: AN EARLY COMPLICATION OF VENTRICULAR TACHYCARDIA ABLATION

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COORDINATOR: ROȘU RADU

Introduction. Monomorphic ventricular tachycardia (VT) in patients with post-infarction cardiomyopathy is caused by reentry through conducting tissue within areas of the myocardial scar. Experience with catheter ablation has progressed substantially in the past years, and is now recommended as a treatment for patients with structural heart disease who experience symptomatic sustained monomorphic VT. Depending on the hemodynamic tolerance of VT, a variety of mapping techniques may be used to identify sites for catheter ablation, including voltage and activation mapping.

Case presentation. We report a case of a 62-year-old male with recurrent monomorphic ventricular tachycardia related to a post-infarction cardiomyopathy. The personal history of the patient revealed acute myocardial infarction conservatively treated in 1992, PTCA stenting of LCx and LAD in 2001, electrophysiology study with a non-inducible VT under Amiodarone and AVNRT ablation in 2002. The ECG at rest revealed abnormal Q waves in inferior leads and in crisis monomorphic wide QRS complex greater than 200 ms on a rate of 150 beats/min. Echocardiographically, the left ventricular ejection fraction was preserved (LVEF=69%). Due to the recurrent episodes of VT, an electrophysiology study with 3D mapping and radiofrequency ablation was performed with success. Post- procedural, the patient developed a femoral pseudoaneurysm that required the anticoagulation to be stopped immediately, which caused spontaneous partial thrombosis due to lack of recommended treatment. The pseudoaneurysm closed spontaneously without any further complications.

Conclusion. Taking into consideration the fact that VT was non-inducible post- ablation, the outcome of the patient is good, but it also depends on the underlying disease, which led to scar formation of 8.7% of the left ventricle and a LVEF greater than 55%.

Particularities. The femoral pseudoaneurysm is a rare vascular complication with an incidence of 0-8% in patients who have undergone an invasive procedure and it can affect the patient outcome due to an increased risk of thromboembolic events.

Keywords: post-infarction cardiomyopathy, ventricular tachycardia, catheter ablation, femoral artery pseudoaneurysm

THE SURGICAL MANAGAMENT OF THE PITUITARY ADENOMAS

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COORDINATORS: BĂLAŞA ADRIAN, CHINEZU RAREŞ

Introduction. The most common lesion encountered in the sella will be a pituitary adenoma. They may be detected incidentally on radiographic scans obtained for unrelated reasons or as a result of clinical symptoms and signs attributable to either endocrine dysfunction or to mass effect.

Case presentation. We present you a case of a 38 year old male who was admitted to the Neurosurgery Clinic from the Emergency County Hospital of Targu Mures with headache and left ophthalmoplegia due to a suprapituitary tumor as seen at computed tomography.The clinical exam revealed left oculomotor nerve palsy, headache syndrome, GCS 15 points. The lab tests showed higher levels of prolactin hormone: >150 ng/dl. At the MRI it was observed that the process was surrounding the two common carotid arteries (right- Knosp 3 and left Knosp-4) and a general invasion under and above the sella. The presumptive diagnosis was pituitary adenoma and hiperprolactinemia. After 8 days he was operated in a left frontotemporal craniotomy and the ablation of the expansive process under the quasi-total microscope. The left side of intrasellar, intrasphenoidal and intracavernous processes wereuntouched. After surgery the patient evolution was good; the Glasgow Coma Score was 14-15 and after a few days of surgery presented epileptic seizures and aphasia. Histopathological examination confirmed the diagnosis of a pituitary adenoma.

Conclusion. The aims of pituitary surgery are ultimately to cure the patient of the tumor, without damage to the pituitary gland, to relieve the symptoms and the signs that have been caused by that process and to achieve this relief without damage to the patient.

Particularities. We presented a case of a pituitary adenoma with less obvious symptoms found in an advanced stage (Knosp score 3-4). After surgery the patient developed diabetes, epilepsy seizures and aphasia.

Keywords: pituitary adenoma, Knosp, hyperprolactinemia

HOMOZYGOUS FV LEIDEN AND HETEROZYGOUS MTHFR ASSOCIATED WITH EARLY ONSET SEVERE INTRAUTERINE GROWTH RESTRICTION

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COORDINATOR: PUNGA ANTOANET

Introduction. Intrauterine growth restriction (IUGR) is a major cause of fetal morbidity and mortality during pregnancy. Thrombophilia in pregnancy is an abnormality of blood coagulation (inherited, acquired, or both) predisposing to thrombosis during pregnancy. The role of mutation in the factor V gene and MTHFR gene, as risk factors for intrauterine growth restriction during pregnancy, is not very well known so far.

Case presentation. We present the case of a 32 year old primigravidae with late diagnosed homozygous FV Leiden and heterozygous MTHFR associated with early onset severe IUGR with oligohidramnios. Fetal karyotipe was normal. Subsequent to diagnosis, antenatal enoxaparin was initiated immediately at 16 weeks. Nevertheless, severe pre-eclamsia was developed at 30 weeks. The fetus was followed with Doppler ultrasonography until a diastolic absence flow of umbilical artery and with no reverse flow in ductus venosus was seen. The fetus (725gr/32cm/25cm) was born with cesarean section. The mother's anticoagulation was also supported mechanically during cesarean section and in the postpartum period. The thrombotic placentae was very small (<200 gr).

Conclusion. This case may present an example of IUGR and homozygous FV Leiden and heterozygous MTHFR. Due to the assumed thrombotic placental pathology, early detection of inherited thrombophilia in pregnancies complicated with IUGR, could result in better fetal monitoring until delivery (weekly ultrasound examination until 36 weeks). The results of molecular tests for thrombophilia mutations can help the obstetrician to take the optimal therapeutic decision in some particular clinical situations.

Particularities. Genetic testing was performed for the case to detect: factor V Leiden mutation and mutation in methylenetetrahydrofolate reductase (MTHFR) gene. Blood samples were obtained as soon as the diagnosis of intrauterine growth restriction was established with ultrasonography.

Keywords: IUGR, homozygous FV Leiden, heterozygous MTHFR, inherited thrombophilia

ARTERIAL CHEMOTHERAPY INFUSION FOR END-STAGE PATIENT PRESENTING A NASAL TUMOUR COMPLICATED WITH ORBITAL INVASION

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Introduction. Laterocervical and facial malignant tumours represent a significant amount of the total of patients presenting to the Interventional Radiology department. Most of them have already exhausted all other treatment options, being candidates for arterial chemotherapy infusion or chemoembolization.

Case presentation. The current case refers to a 75 year old female patient, diagnosed approximately 1 year ago with a nasal tumour. In the year after the diagnosis, the patient followed radiotherapy and multiple sessions of intravenous polychemotherapy, the tumour doubling in size at the 12 months imaging control for TNM staging. After multiple epistaxis episodes, the patient was referred to the Interventional Radiology department for intra-arterial treatment. Using a SIEMENS Axiom Artis dFa Angiograph placed in a hybrid OR, we proceeded to attain arterial approach via the right femoral artery with a 5F sheath. Following arterial sheath placement, we advanced a 4F VERTEBRAL catheter into the left external carotid artery. After control angiography, we infused 1000 mg of 5-fluoro-uracil intra-arterially (50 mg/ml, 20 ml), suspended in 2000 ml of saline, glucose and mannitol mixture. The infusion took 300 minutes at a constant flow rate. Just before the end of the procedure the patient had an epistaxis episode (10,000 UI of heparin administered throughout the procedure). We decided to finish the chemoinfusion and also place temporary embolizing material into the artery. 30 days follow-up CT showed tumour mass reduction.

Conclusion. Arterial chemotherapy infusion represents a viable alternative for advanced or end-stage cancers, laterocervical tumours in particular. Use of high local doses associated with relative low systemic doses makes it a go-to procedure for a wide array of tumours.

Particularities. The patient had no favorable outcome under classic therapeutic procedures; however, the tumour size diminished after endovascular treatment.

Keywords: arterial chemotherapy infusion, nasal tumour, orbital invasion

A RARE CASE OF SUBCORTICAL HETEROTOPY ('DOUBLE CORTEX' SYNDROME) IN A YOUNG MALE

AUTHOR: BOLDEANU ELENA
COORDINATOR: NIȚĂ SMARANDA

Introduction. Subcortical band heterotopia, also known as double cortex syndrome, is a condition of abnormal brain development that is present from birth. This condition which primarily affects females, occurs when neurons migrate to a zone of the brain where they are not supposed to be (heterotopia), and form abnormal areas that appear as band-like clusters of white tissue underneath the gray tissue of the cerebral cortex (subcortical), creating the appearance of a double cortex.

Case presentation. We present a 8 year old boy who was admitted for refractory epileptic seizures and delayed language development. He had a history of paroxystic manifestations that started at the age of 2 and had frequent admissions for having recurrent seizure attacks. He was the only child of his family and was a product of uneventful term pregnancy with an Apgar Score of 8. His neuropsychomotor development was normal except dyslalia and bradylalia. The physical exam was unremarkable. The lab data were all within normal, but the EEG revealed a couple of poly spike-wave discharges. A brain MRI showed generalized band heterotopia. He underwent a multiple antiepileptic treatment scheme for keeping under control these seizures.

Conclusion. In the diagnostic evaluation of an epileptic children, a brain MRI is strongly recommended for accurate diagnosis of anomalies such as neuronal migration disorders (in this case band heterotopia) because appropriate therapeutic management are dependent on a definite diagnosis of the case.

Particularities. The 'Double Cortex' syndrome is a rare congenital disease which affect mostly females, but in this rare instance a young male was diagnosed with this disease.

Keywords: rare congenital disease, refractory epileptic seizures, neuronal migration disorder

MULTIPLE BROWN TUMORS: MANIFESTATION OF SEVERE RENAL OSTEODYSTROPHY

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Introduction. Brown tumors (BT) are benign focal bone lesions that may appear in the context of hyperparathyroidism (HP) of various etiologies. The incidence ranges from 1.5% in primary HP to 13% in cases of secondary HP. These are most frequently situated in facial bones, ribs, pelvis and clavicle. The spine being affected is unusual, and cervical spine involvement is rare.

Case presentation. A 26-year-old woman with end-stage renal disease, who started hemodialysis in February 2015, had seizures and cardiorespiratory arrest and was successfully resuscitated during the third hemodialysis session. A neurological examination was recommended. Cerebral CT scan revealed a fibrotic tumor-like mass localized in left nasal cavity. On April 2015, an MRI scan was performed, without any additional lesions being found. On the 23rd of November, following cervical trauma, a CT scan revealed the fracture of odontoid process and of the first cervical vertebra (C1); the MRI imaging also showed multiple lesions affecting the neurocranium, the left maxillary sinus, C1 and C4. Thoracic CT also showed multiple osteolytic lesions. Serum parathormone level was 2008 pg/ml. The patient was then referred to the Nephrology department of the County Hospital of Cluj-Napoca. The Patient underwent a PET scan, which showed hypermetabolic bone lesions disseminated throughout the skeletal system, including the skull, pelvic bones, left tibia, clavicles, sternum and a large number of vertebrae. The pathologic analysis revealed a fibroblastic stroma with multinucleated osteoclast-like cells. Considering radiological, pathological and laboratory test results, the definitive diagnosis of BT secondary to HP was reached.

Conclusion. Whenever multiple osteolytic lesions are found in a patient undergoing hemodialysis, BT due to secondary PT must be taken into account.

Particularities. We report a case of multiple BT disseminated throughout the skeletal system with the rare involvement of the cervical spine and the rapid extension of BT (months).

Keywords: brown tumor, end-stage renal disease, secondary hyperparathyroidism

DIFFICULT DIAGNOSIS - NASOPHARYNGEAL CARCINOMA WITH SKULL BASE INVASION

AUTHOR: FARCASAN ROXANA
COORDINATOR: TIPLE CRISTINA

Introduction. Nasopharyngeal carcinoma (NPC), a tumor arising from epithelial cells that cover the surface and line the nasopharynx, is a rare malignancy worldwide but is prevalent in certain geographical areas, such as Southern Asia and North Africa. The nasopharynx is situated just below the base of the skull. Nasopharyngeal carcinoma has a great tendency to invade adjacent regions fairly early. Due to its deep and hidden anatomical location, the infiltrating ability of the tumour, and the non-specific nature of the symptoms, it is not diagnosed until it reaches an advanced stage. So, skull erosion and/or cranial nerve involvement symptoms can be the first symptoms when presented to the doctor.

Case presentation. A female aged 33 years presented with chronic occipital headache and hypoacusis of 2-year duration. Since July 2015 she associated diplopia and left hemiface hypoesthesia. The patient had multiple hospitalizations (ORL, neurology) with paraclinical investigation and treatment without symptoms amelioration. In December 2015 she reached Medicala II. Based on the clinical examination (nasopharyngeal endoscopy: nasopharyngeal palate encrusts, with an invasion tissue area), CT scan and anatomopathological exam the patient was diagnosed with undifferentiated nonkeratinizing carcinoma with skull base inavasion T4N0M0. Radio-chemotherapy was decided. The patient underwent myringotomy with unilateral tube insertion.

Conclusion. The patient had a positive response to radio-chemotherapy and a good evolution after myringotomy.

Particularities. In this case the first symptoms when presented to the doctor were skull erosion and/or cranial nerve involvement symptoms, transformig the case into one with a difficult diagnosis.

Keywords: nasopharyngeal, skull, carcioma, invasion

RECURRENT MENINGIOMA WITH SUBTLE CLINICAL SYMPTOMS: A CASE REPORT

AUTHOR: COLDEA BIANCA MARIA
COORDINATORS: ILUT SILVINA, VITALIE VACARAS

Introduction. Meningiomas, the most common brain tumors in adult population, account for approximately one quarter of primary central nervous system tumors. They are thought to arise from the arachnoidal 'cap' cells which reside in the arachnoid layer covering the surface of the brain. This case report describes the clinical presentation, the investigations, the differential diagnosis and the current treatment options for this condition.

Case presentation. A 53-year-old patient consulted his doctor for progressive loss of vision in his left eye, left hyposmia and frontoparietal headache. After the initial ophthalmological consult confirmed a left eye papilledema, he was further referred to a neurologist. The CT revealed an olfactory groove tumor indicating a meningioma. The management of patients with this pathology depends on patient specific factors, the location and the histopathogenesis of the tumor. Thereby, the optimal treatment was complete surgical resection resulting in complete remission of the headaches.

Conclusion. Brain tumors can produce a large variety of clinical symptoms from easily identifiable ones such as upper motor neuron lesion symptoms, altered consciousness to subtler signs that can be neglected such as those presented in this case report. It is of utmost importance for clinicians that in the presence of uncommon neurological signs and symptoms, cranial nerve dysfunction or failed conservative therapy one should not hesitate referring the patient to a specialist.

Particularities. The particularity of this case is that, after seventeen years, the headaches and the lowered visual acuity reappeared, accompanied by bilateral anosmia and anxiety disorder. An MRI revealed the recurrence of the olfactory groove meningioma as well as the appearance of two smaller new masses located in the prefrontal and prepontine region. The problem of meningiomatosis was raised. Clinical examination, the MRI and the ophthalmologic exam confirmed Foster-Kennedy syndrome. Due to the patient's cardiac decompensation, now, the best treatment is a conservative one.

Keywords: meningioma, Foster-Kennedy syndrome, papilledema, anosmia

GROOVE PANCREATITIS - THE UNKNOWN ENEMY

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COORDINATOR: DICULESCU MIRCEA

Introduction. Groove pancreatitits is a very rare and misleading type of chronic pancreatitis. It affects the anatomical area between the pancreatic head, the common bile duct and the duodenum, named 'the groove area'. This localization leads to unspecific symptoms such as upper abdominal pain, postprandial vomiting and weight loss, due to the malabsorption of the important nutriments.

Case presentation. The patient was a man, aged 65, who suffered from hypertension, dyslipidemia, anxiety disorder, depression, known to have suffered from duodenal ulcer, having been treated with proton-pump inhibitors. He was admitted to the Gastroenterology ward complaining of upper abdominal pain that radiated in the back, and also vomiting, with progressive aggravation. Local examination of the patient revealed a low body index, pain in the epigastric area on palpation and decreased bowel movements. Blood tests unveiled hyperlipasemia, high levels of albumin and an important inflammatory syndrome without leukocytosis. The abdominal CT revealed pancreaticoduodenal structural alteration of uncertain features. The MRI was suggestive for paraduodenal pancreatitis.

Conclusion. Groove pancreatitis is a rare disease that has only been described in a few articles and studies worldwide. For this reason and for the fact that the symptoms and the paraclinical results are not specific, it is usually mistaken for periampullary or pancreatic carcinoma. This is the reason a differential diagnosis is needed. Moreover, we consider that it is highly important to achieve more information on this pathology in order to start the treatment: first, diet-related, medication as well (tramadol hydrochloride, trimebutine maleate, pancreatin) and most widely used - pancreaticoduodenectomy.

Particularities. The main particularity of this pathology consisted of stenosis of the duodenum due to inflammation. This usually leads to symptoms such as nausea and postprandial vomiting, with an important role in the diagnosis.

Keywords: pancreatitis, stenosis, pancreatoduodenectomy, metaplasia